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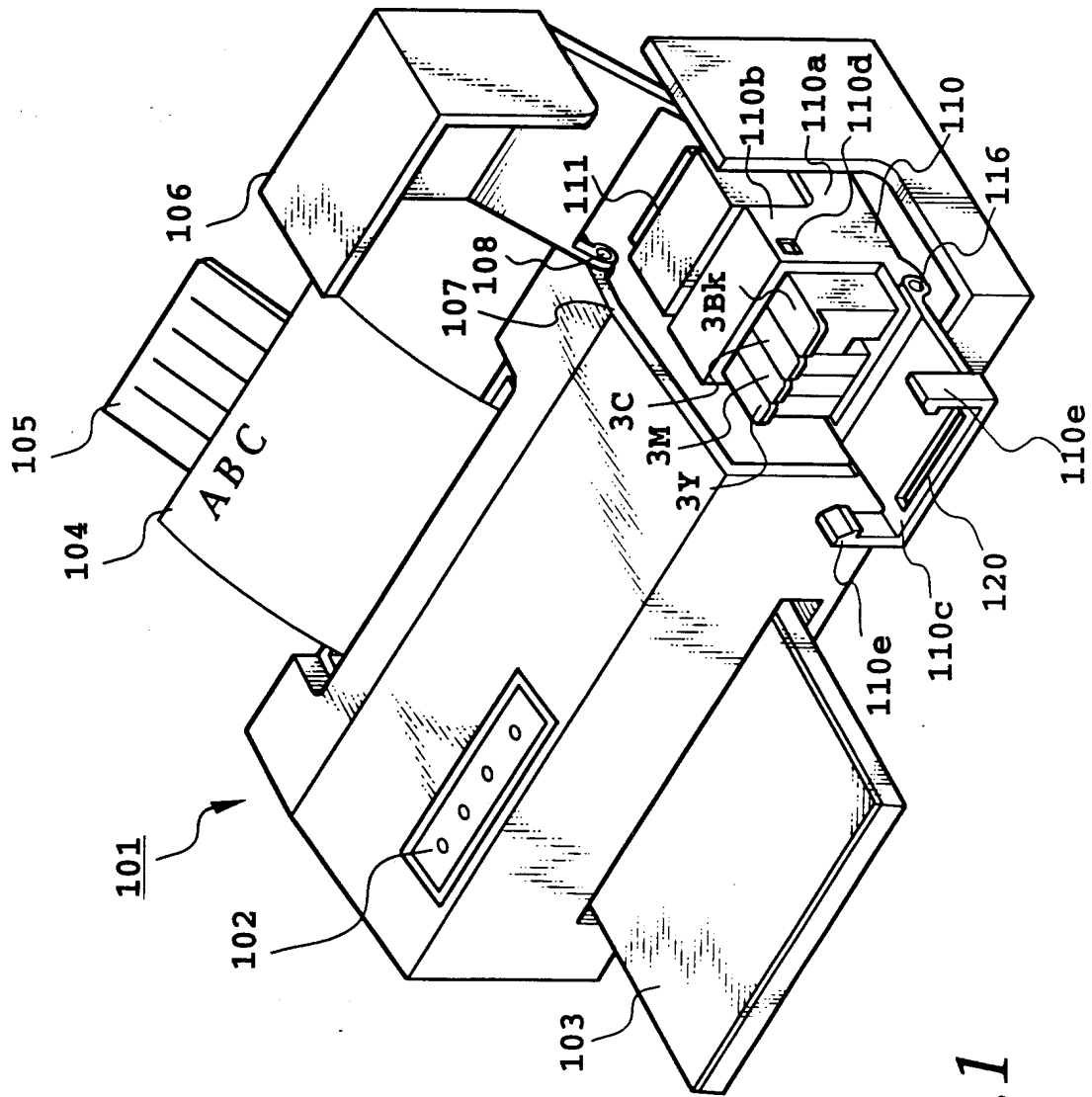


FIG.1

6A26B-347-57

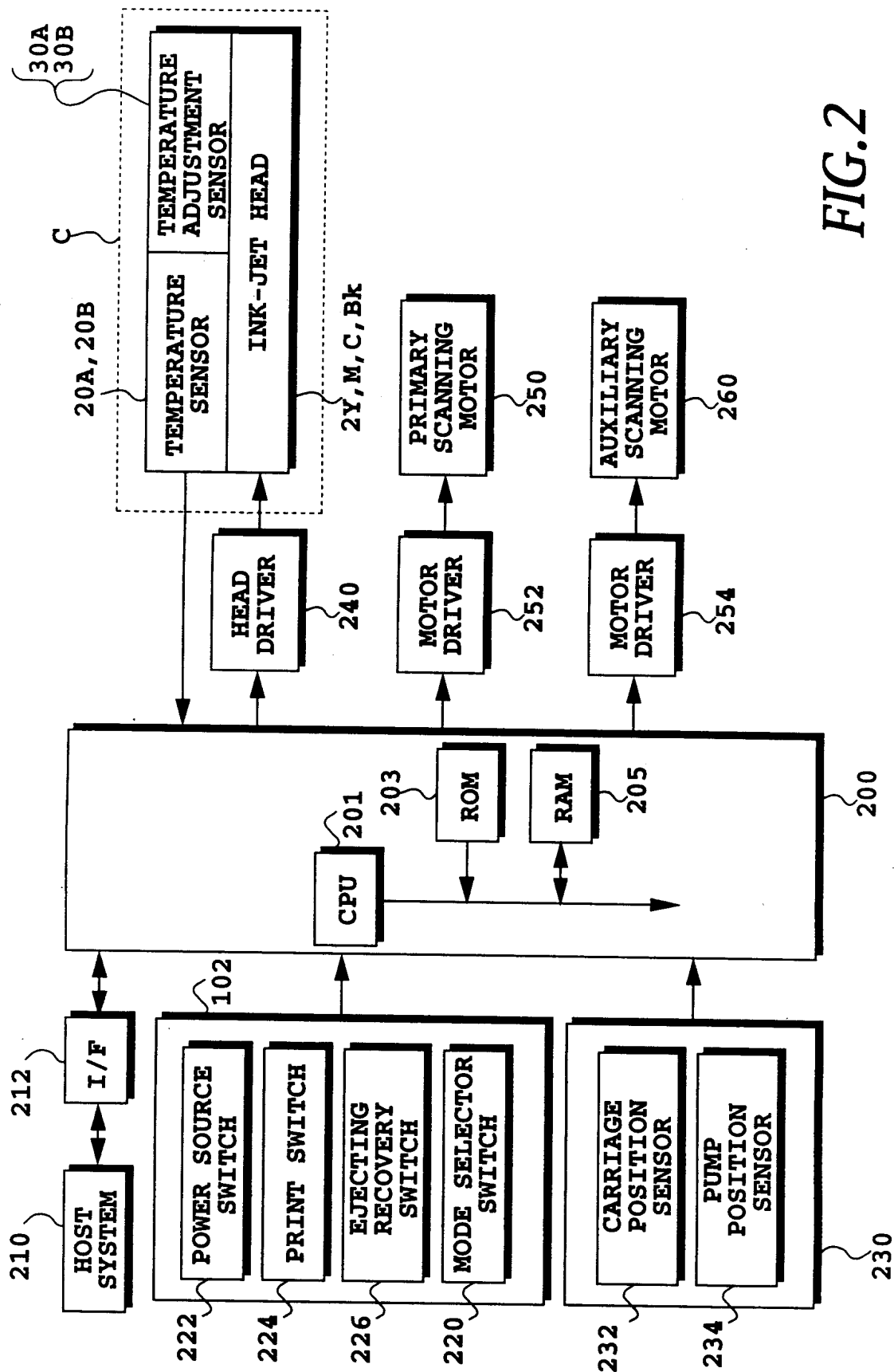


FIG. 2

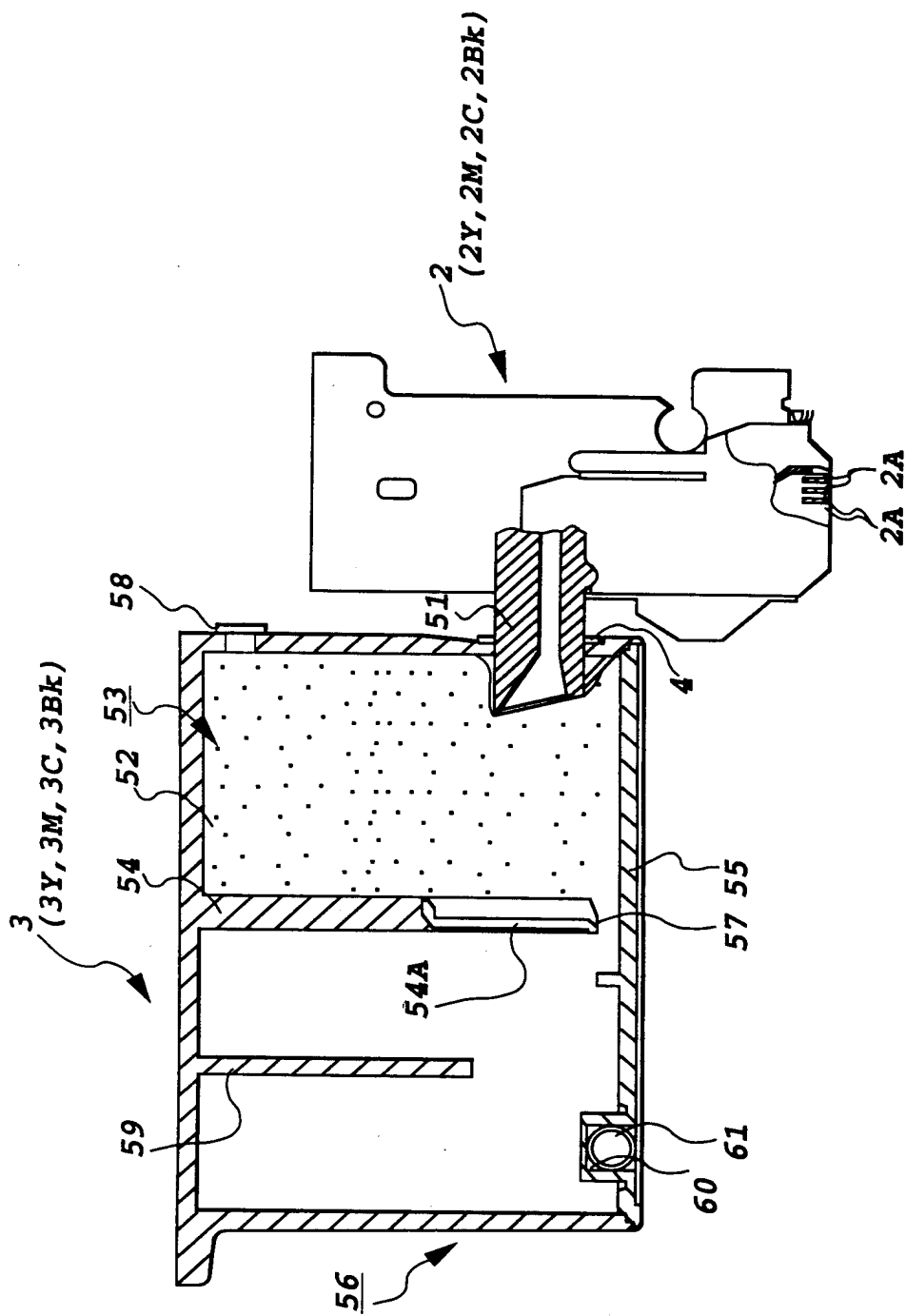


FIG.3

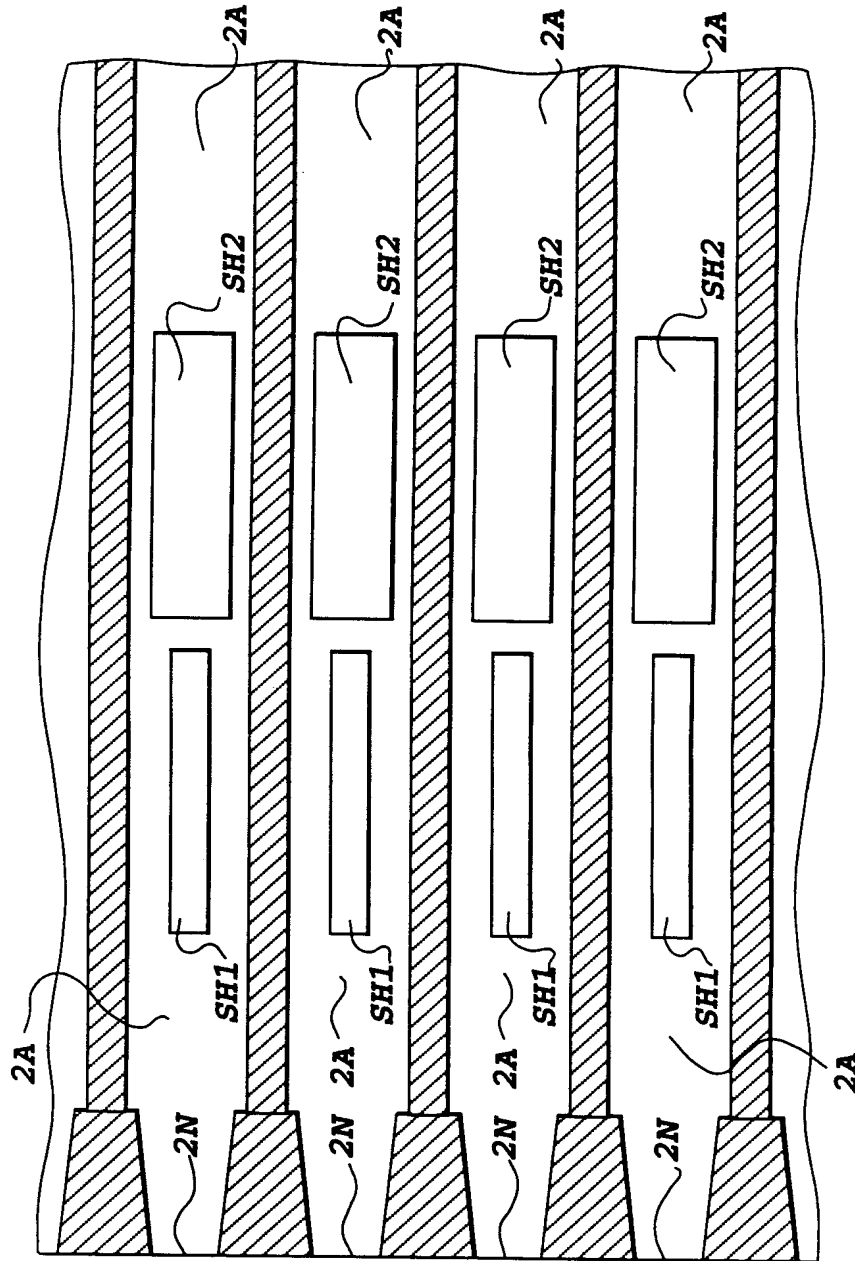


FIG.4

FIG. 5

FIG. 5A

FIG. 5B

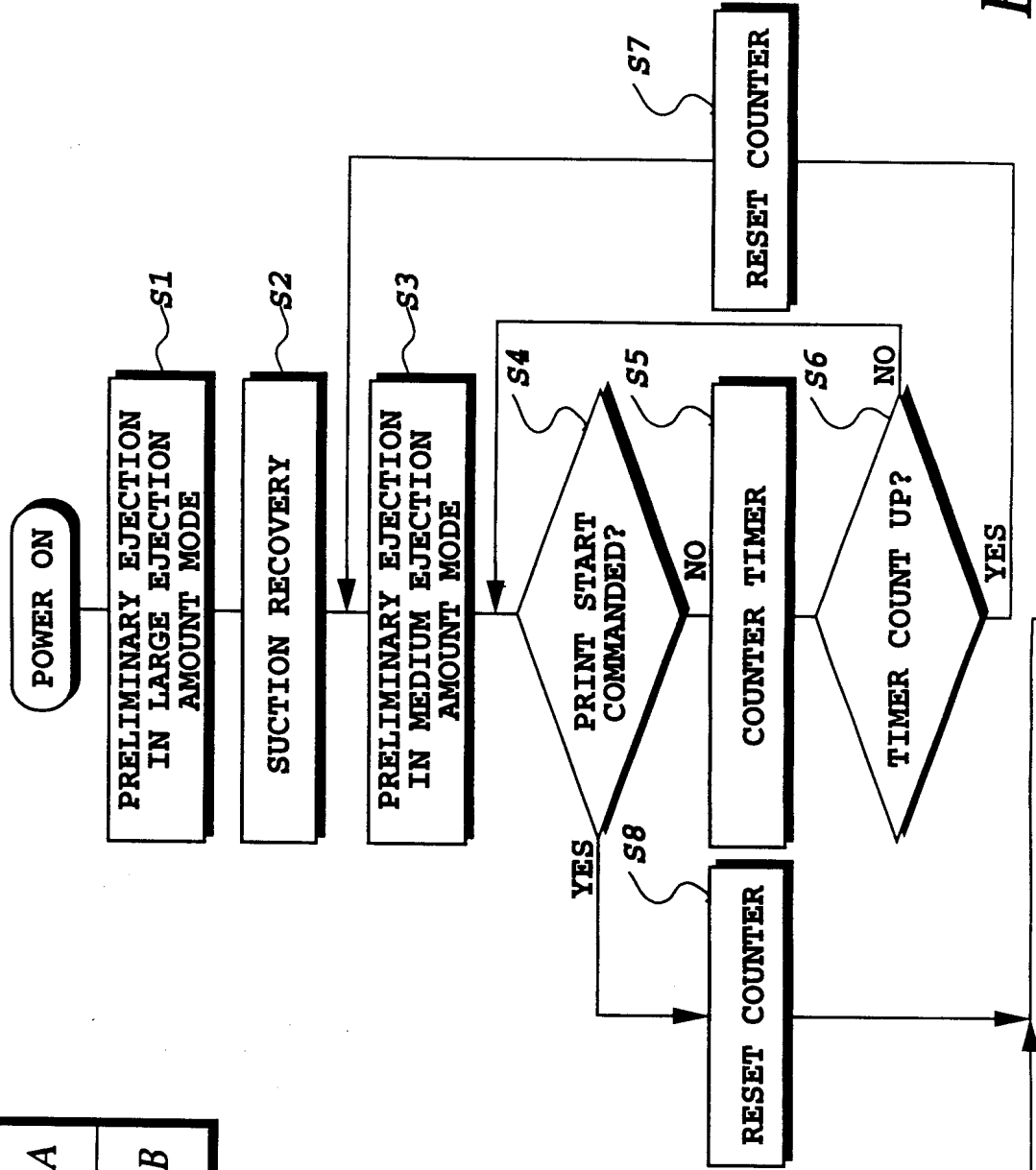


FIG. 5A

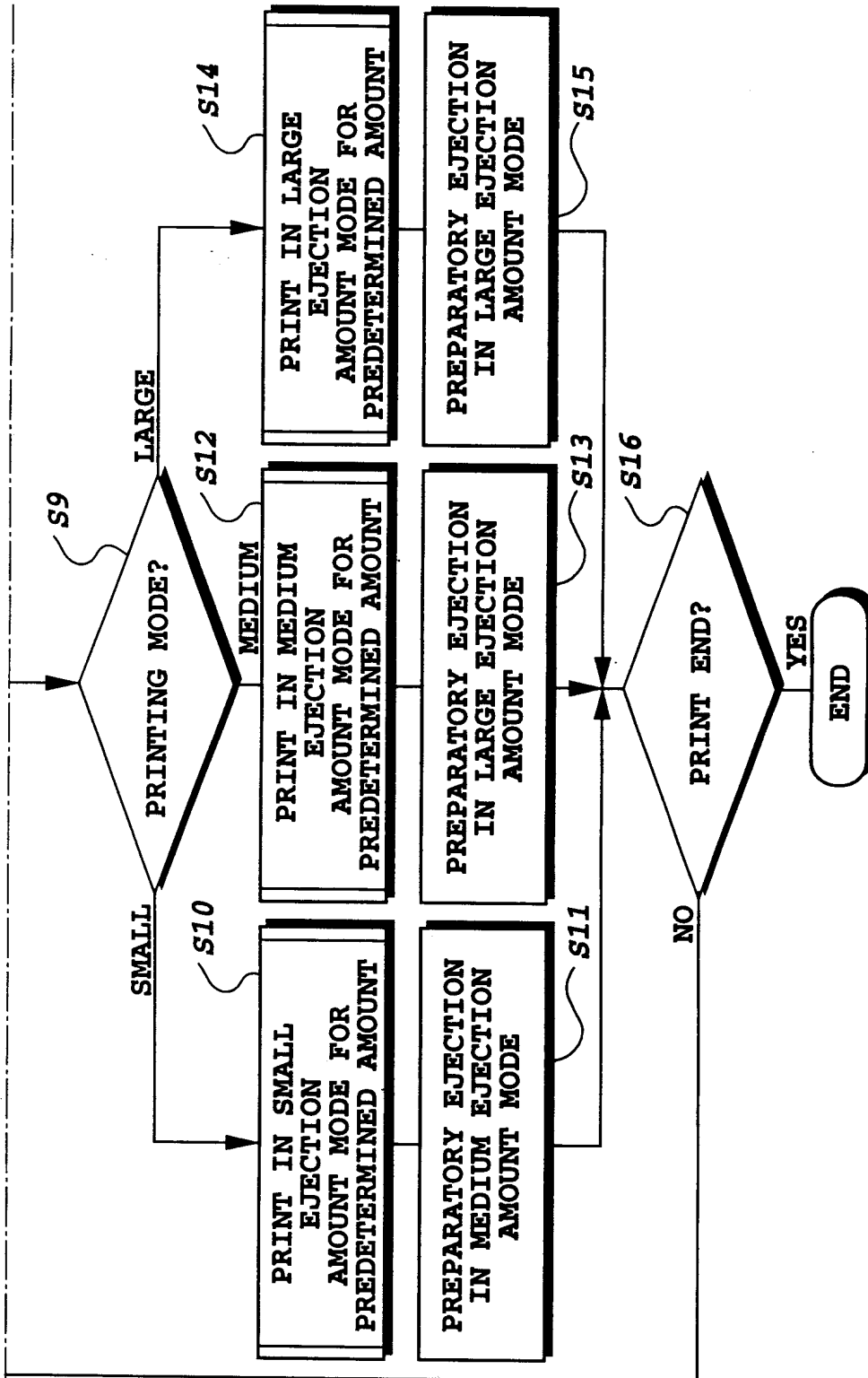


FIG5B

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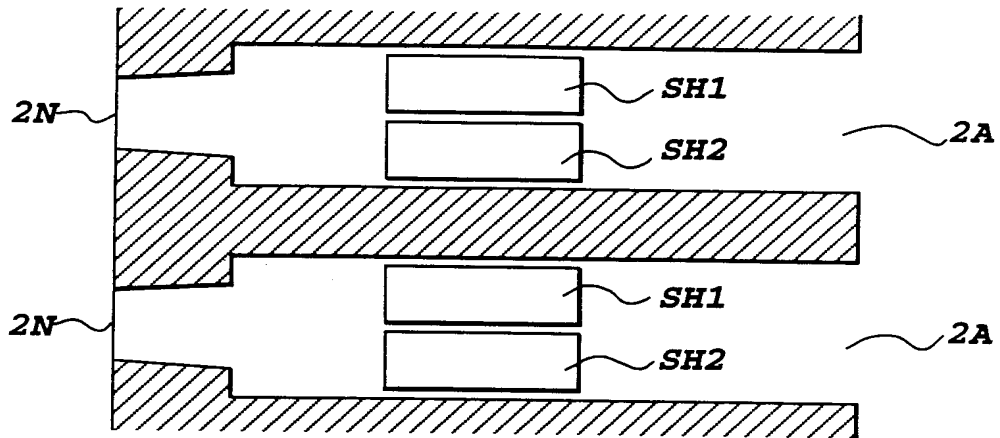


FIG. 6A

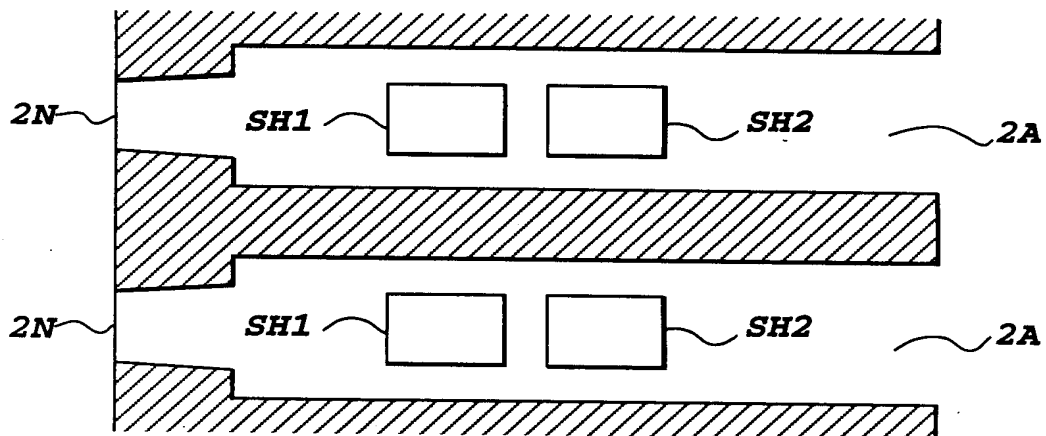


FIG. 6B

FIG. 7

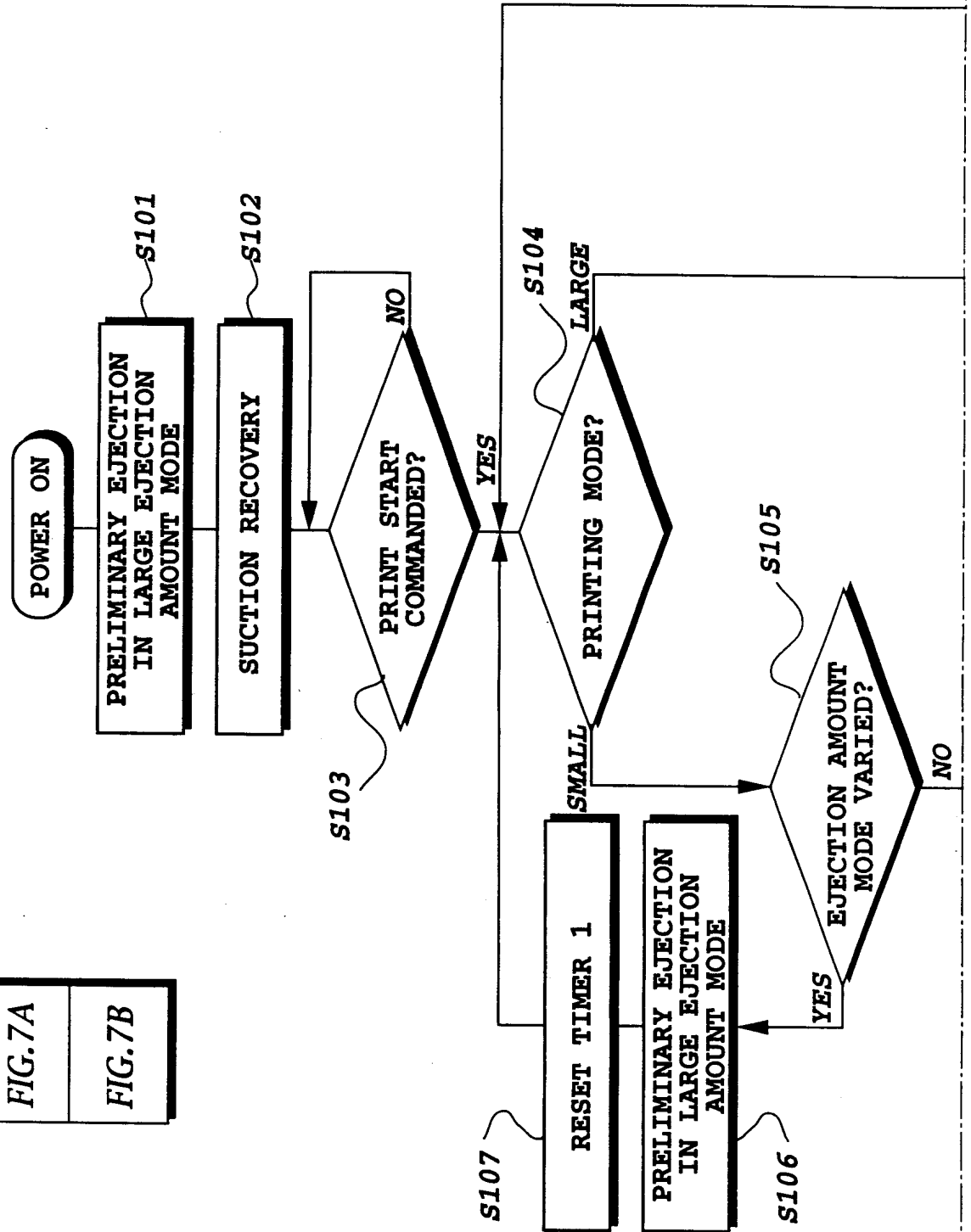
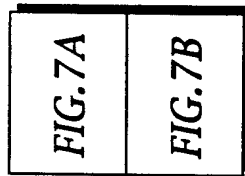


FIG. 7A

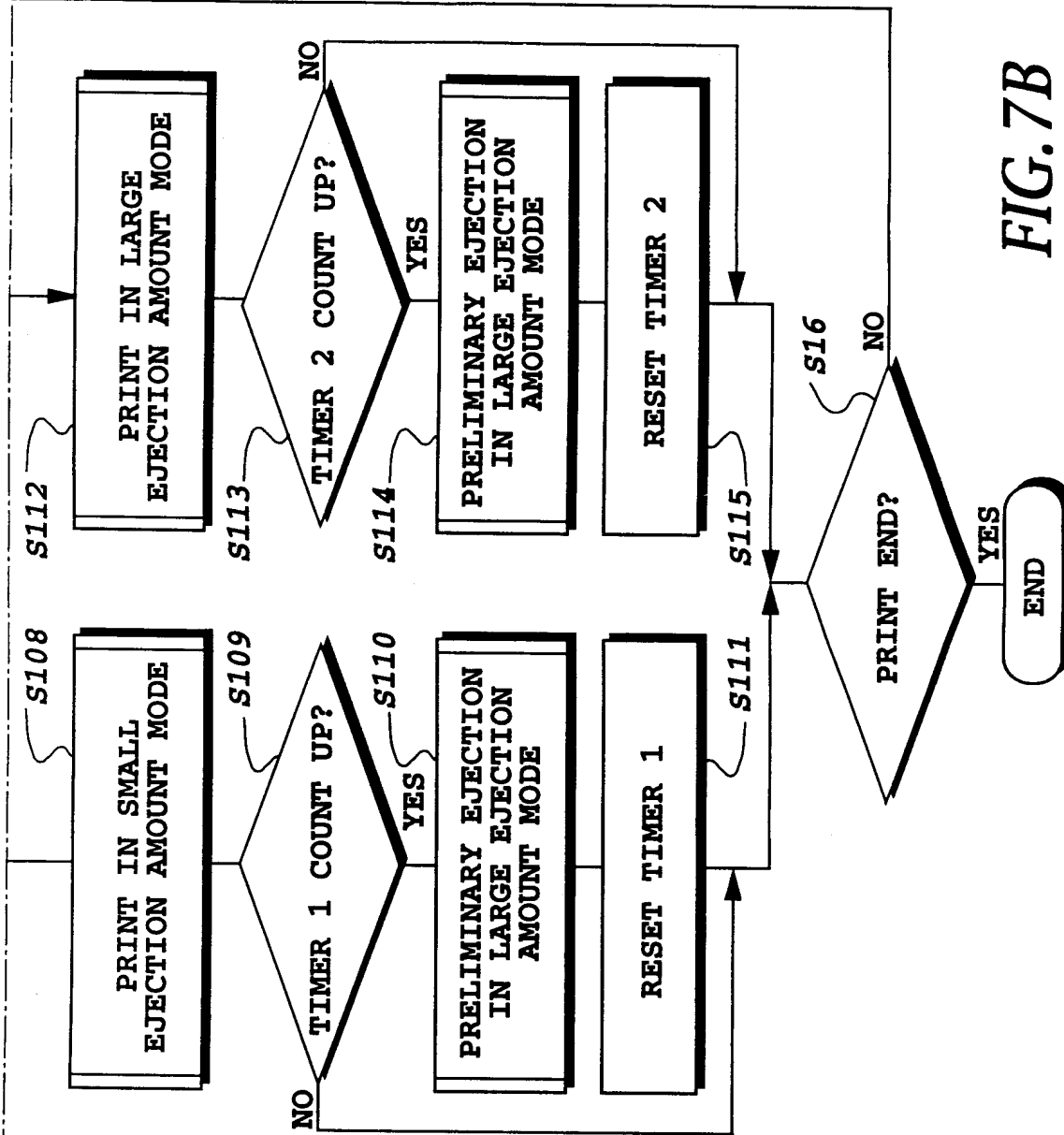


FIG. 7B

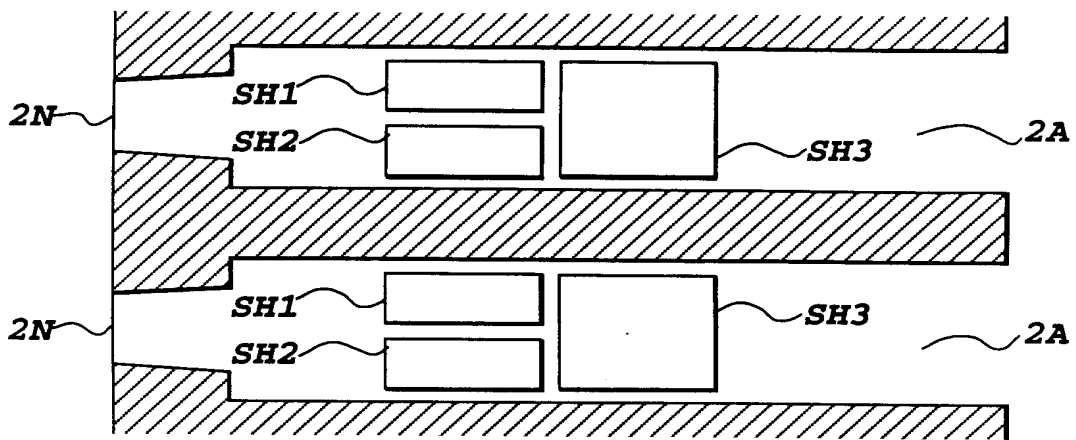


FIG.8

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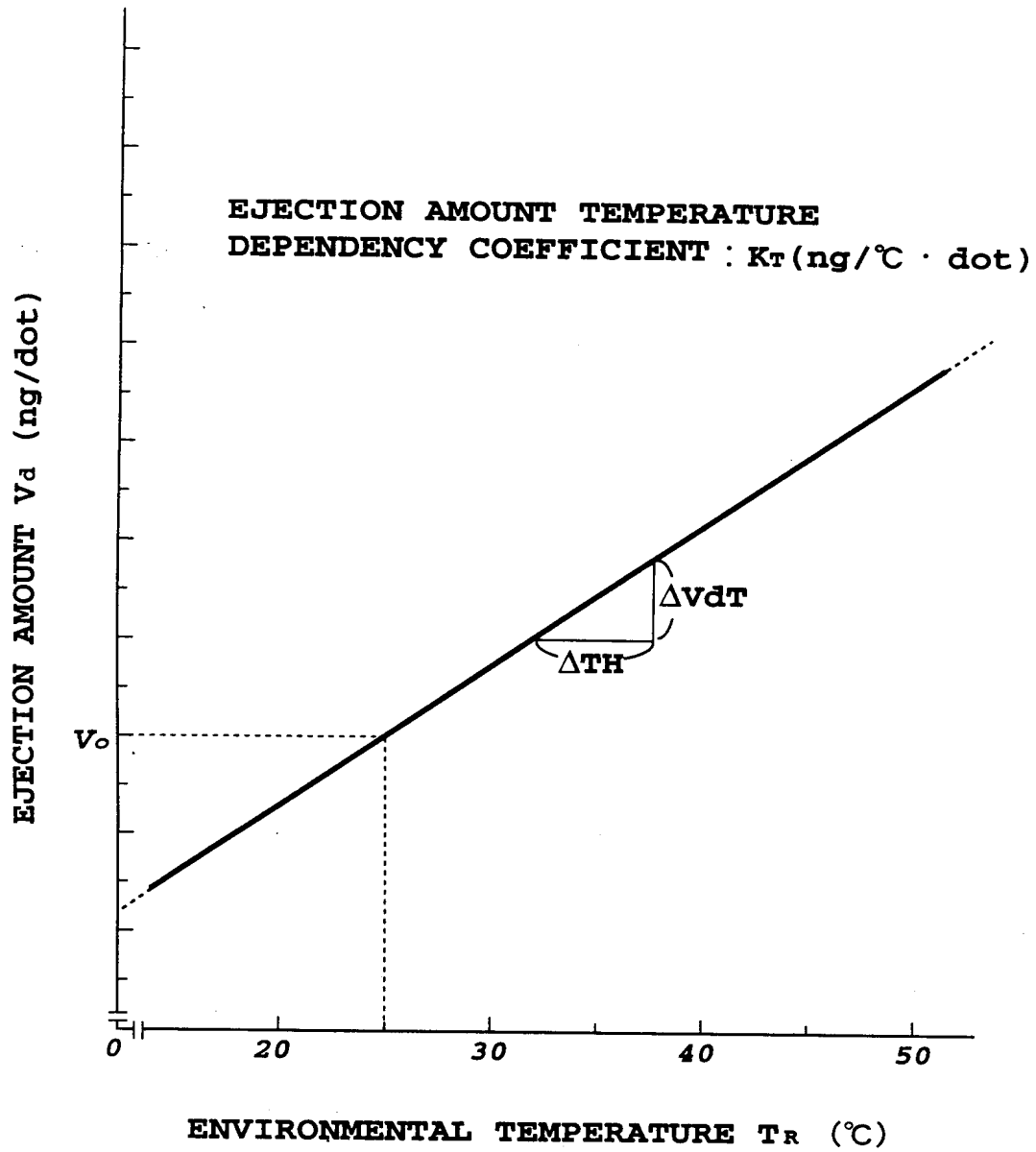


FIG.9

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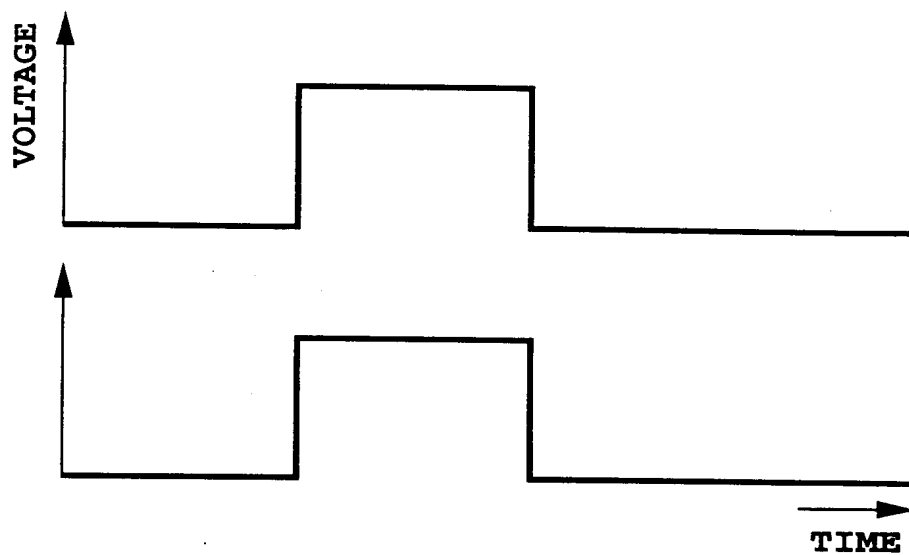


FIG. 10A

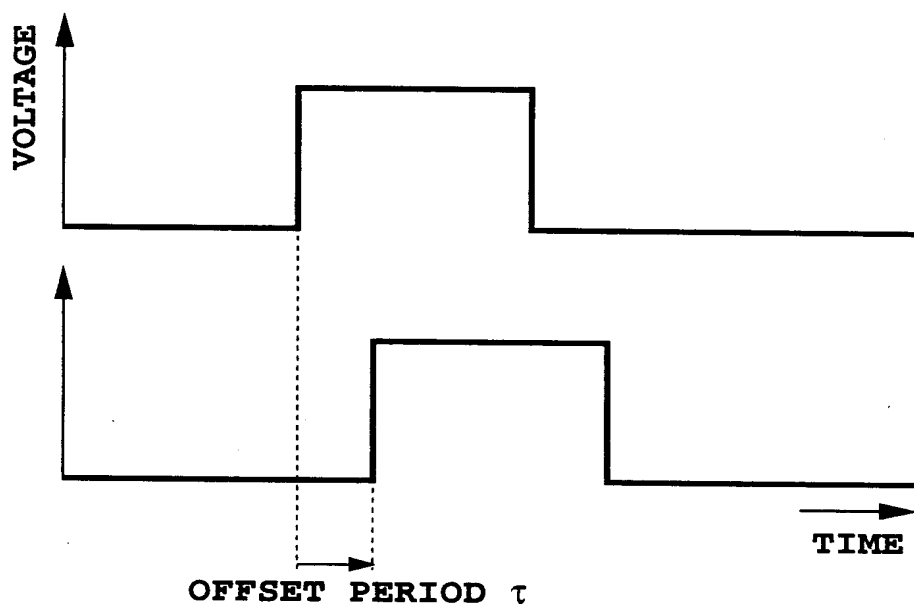


FIG. 10B

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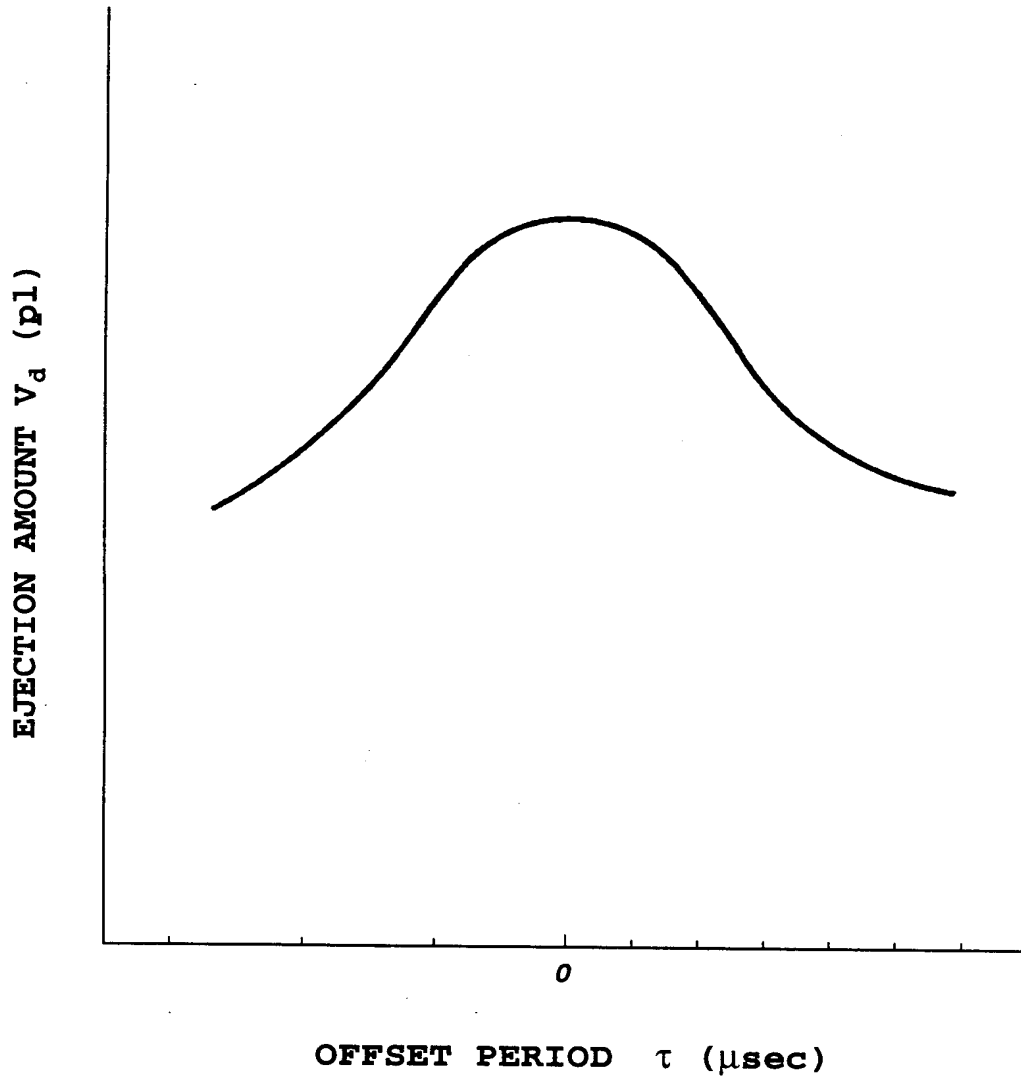


FIG.11

TABLE NO.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
HEAD TEMPERATURE T_h ($^{\circ}\text{C}$)	LESS THAN 26	26 OR MORE ~ LESS THAN 29	29 OR MORE ~ LESS THAN 32	32 OR MORE ~ LESS THAN 35	35 OR MORE ~ LESS THAN 38	38 OR MORE ~ LESS THAN 41	41 OR MORE ~ LESS THAN 44	44 OR MORE ~ LESS THAN 47	47 OR MORE ~ LESS THAN 50	50 OR MORE ~ LESS THAN 53	53 OR MORE
OFFSET PERIOD τ (μsec)	0	0.8	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.4	4.0

FIG.12

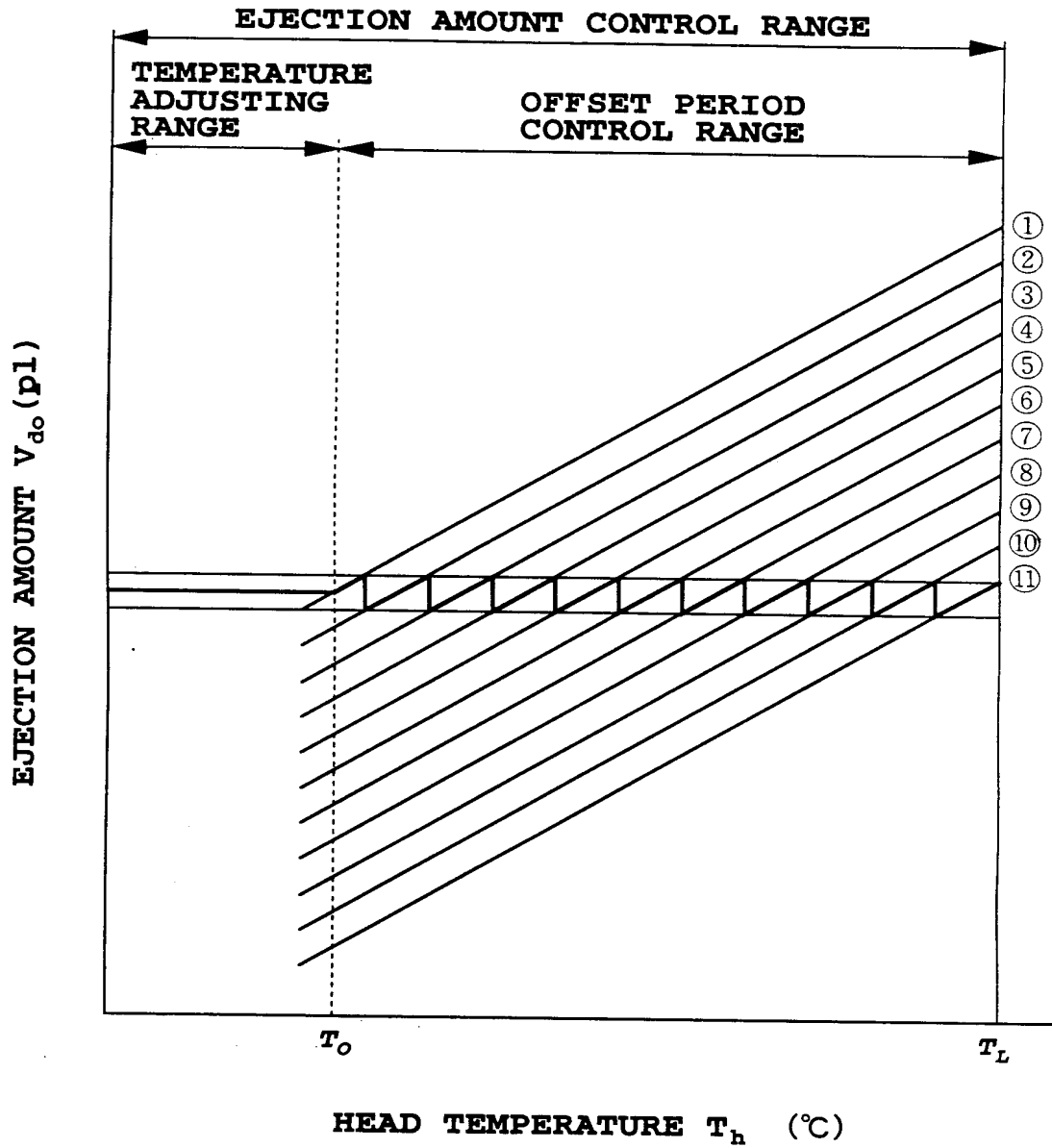


FIG.13

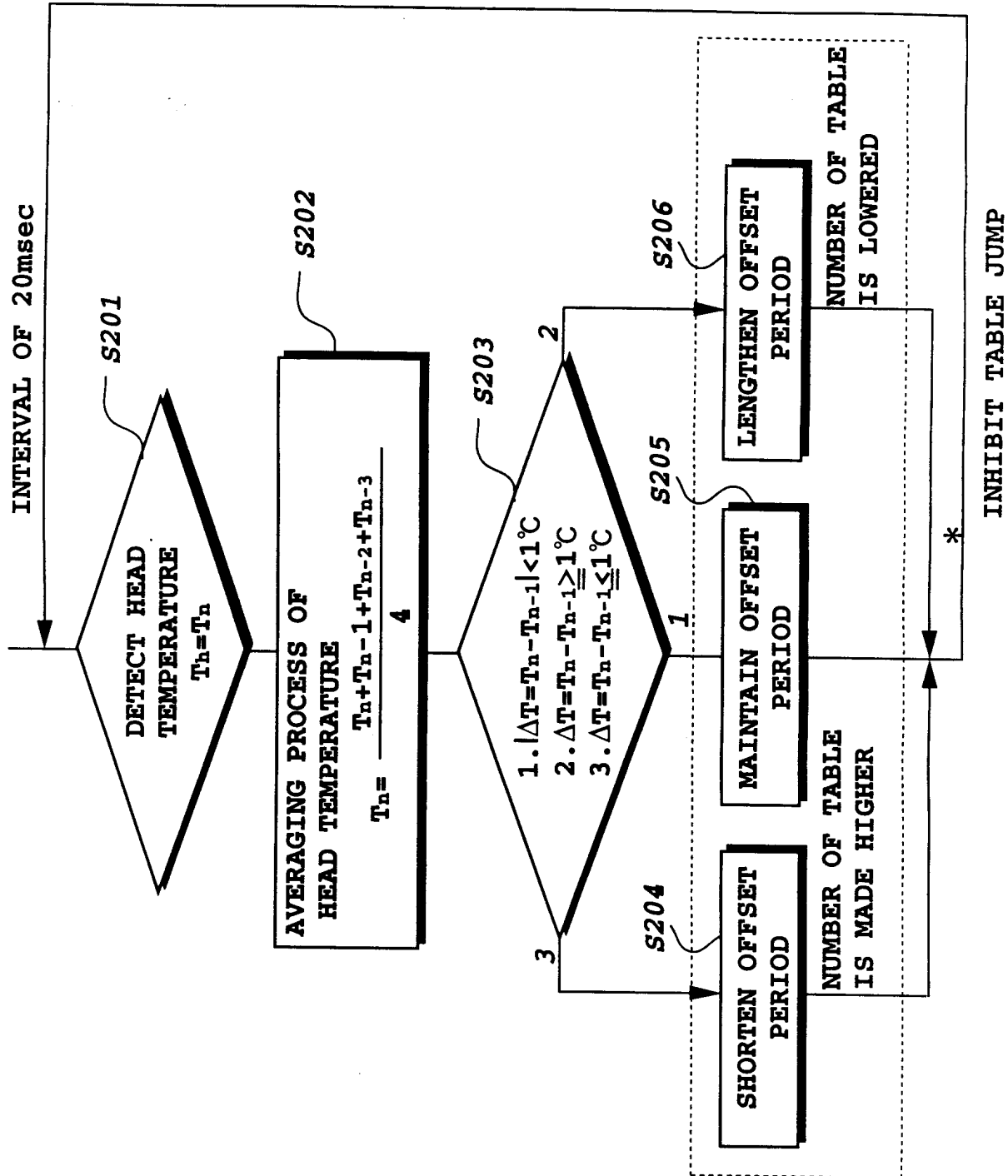


FIG. 14

TABLE NO.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
HEAD TEMPERATURE T_h (°C)	LESS THAN 26	26 OR MORE ~ LESS THAN 29	29 OR MORE ~ LESS THAN 32	32 OR MORE ~ LESS THAN 35	35 OR MORE ~ LESS THAN 38	38 OR MORE ~ LESS THAN 41	41 OR MORE ~ LESS THAN 44	44 OR MORE ~ LESS THAN 47	47 OR MORE ~ LESS THAN 50	50 OR MORE ~ LESS THAN 53	53 OR MORE
OFFSET PERIOD τ (μ sec)	0	-0.8	-1.2	-1.5	-1.8	-2.1	-2.4	-2.7	-3.0	-3.4	-4.0

FIG.15

TABLE NO.	①	②	③	④	⑤	⑥	⑦	⑧
HEAD TEMPERATURE T_h ($^{\circ}\text{C}$)	LESS THAN 26	26 OR MORE ~ LESS THAN 29	29 OR MORE ~ LESS THAN 32	32 OR MORE ~ LESS THAN 35	35 OR MORE ~ LESS THAN 38	38 OR MORE ~ LESS THAN 41	41 OR MORE ~ LESS THAN 44	44 OR MORE
OFFSET PERIOD τ (μsec)	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3

FIG.16

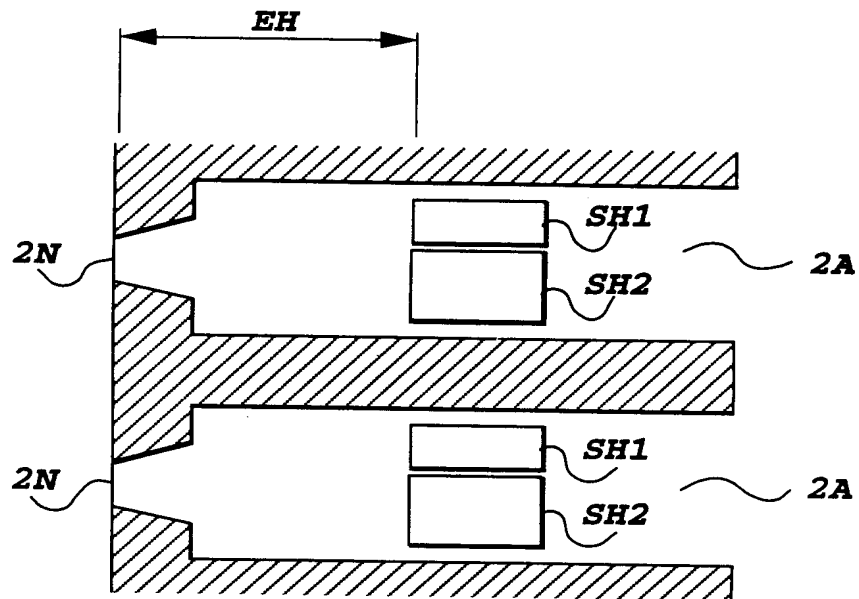


FIG.17

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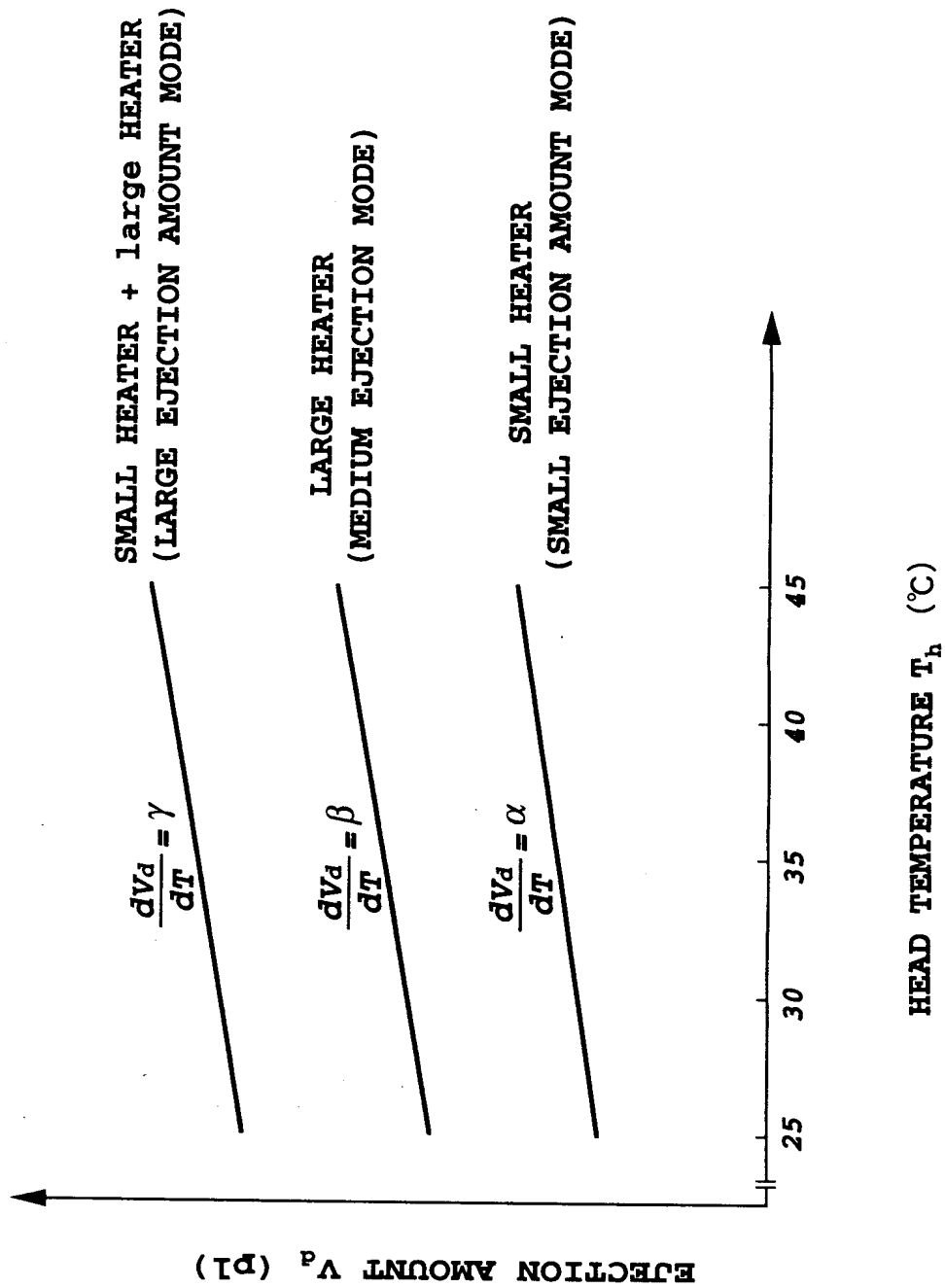


FIG.18

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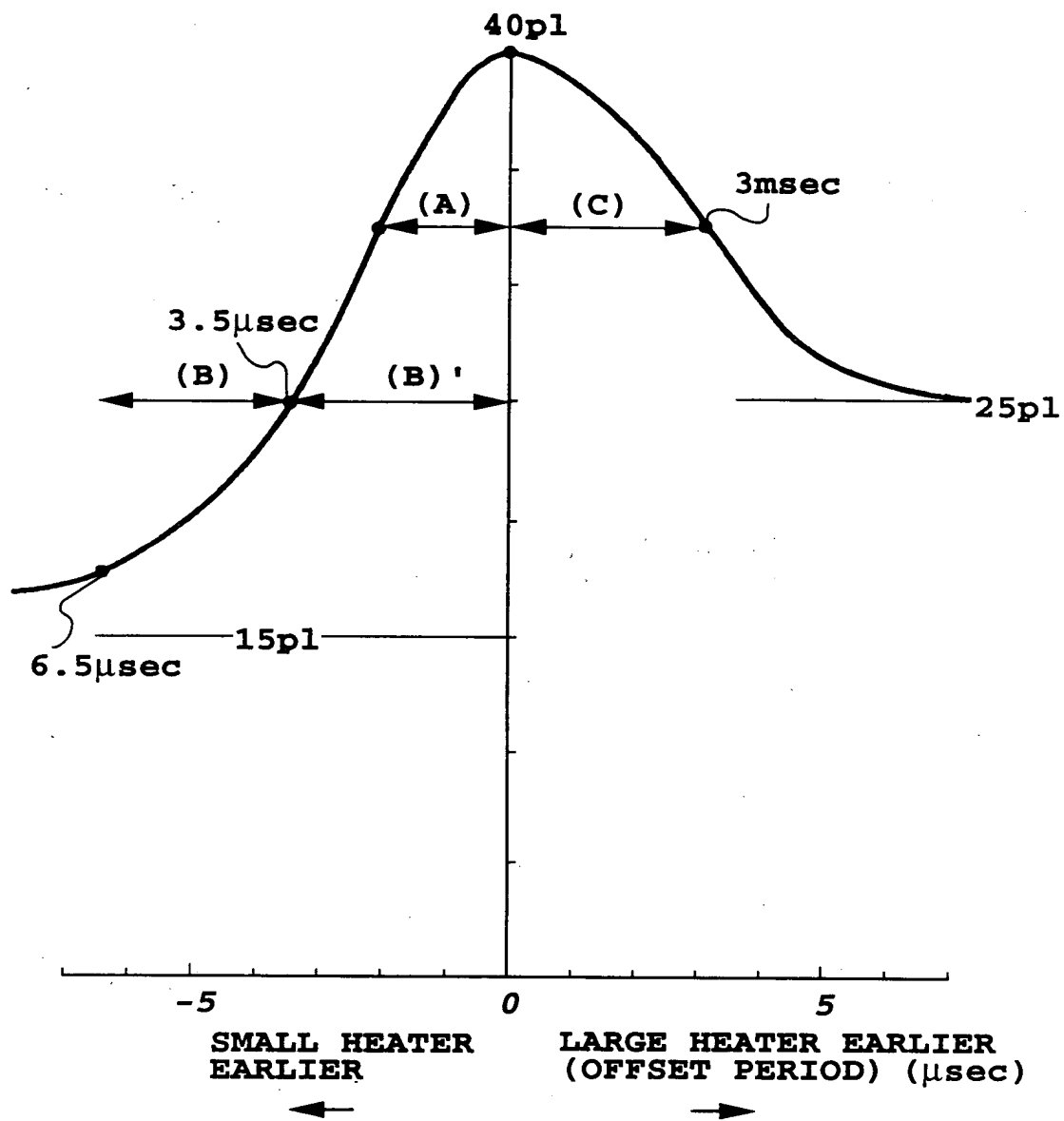


FIG.19

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LARGE EJECTION AMOUNT MODE (40pl/dot)

TABLE NO.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
HEAD TEMPERATURE T_h (°C)	LESS THAN 26	26 OR MORE ~ LESS THAN 29	29 OR MORE ~ LESS THAN 32	32 OR MORE ~ LESS THAN 35	35 OR MORE ~ LESS THAN 38	38 OR MORE ~ LESS THAN 41	41 OR MORE ~ LESS THAN 44	44 OR MORE ~ LESS THAN 47	47 OR MORE ~ LESS THAN 50	50 OR MORE
OFFSET PERIOD τ (μsec)	0	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0

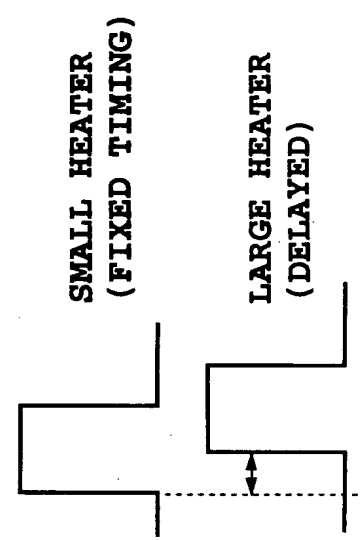


FIG.20A

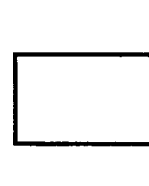
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(25p1/dot)

MEDIUM EJECTION AMOUNT MODE

TABLE NO.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
HEAD TEMPERATURE T_h (°C)	LESS THAN 26	26 OR MORE ~ LESS THAN 29	29 OR MORE ~ LESS THAN 32	32 OR MORE ~ LESS THAN 35	35 OR MORE ~ LESS THAN 38	38 OR MORE ~ LESS THAN 41	41 OR MORE ~ LESS THAN 44	44 OR MORE ~ LESS THAN 47	47 OR MORE ~ LESS THAN 50	50 OR MORE
OFFSET PERIOD τ (μ sec)	3.5	3.8	4.1	4.4	4.7	5.0	5.3	5.7	6.1	6.5

SMALL HEATER
(FIXED TIMING)



LARGE HEATER
(DELAYED)

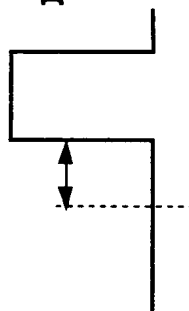


FIG.20B

LARGE EJECTION AMOUNT MODE (40pl/dot)

TABLE NO.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
HEAD TEMPERATURE T_h (°C)	LESS THAN 26	26 OR MORE ~ LESS THAN 29	29 OR MORE ~ LESS THAN 32	32 OR MORE ~ LESS THAN 35	35 OR MORE ~ LESS THAN 38	38 OR MORE ~ LESS THAN 41	41 OR MORE ~ LESS THAN 44	44 OR MORE ~ LESS THAN 47	47 OR MORE ~ LESS THAN 50	50 OR MORE
OFFSET PERIOD τ (μsec)	0	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0

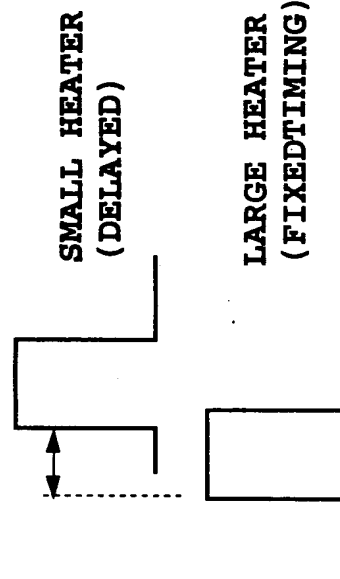


FIG.21A

MEDIUM EJECTION AMOUNT MODE (25pl/dot)

TABLE NO.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
HEAD TEMPERATURE T_h (°C)	LESS THAN 26	26 OR MORE ~ LESS THAN 29	29 OR MORE ~ LESS THAN 32	32 OR MORE ~ LESS THAN 35	35 OR MORE ~ LESS THAN 38	38 OR MORE ~ LESS THAN 41	41 OR MORE ~ LESS THAN 44	44 OR MORE ~ LESS THAN 47	47 OR MORE ~ LESS THAN 50	50 OR MORE
OFFSET PERIOD τ (μsec)	3.5	3.8	4.1	4.4	4.7	5.0	5.3	5.7	6.1	6.5

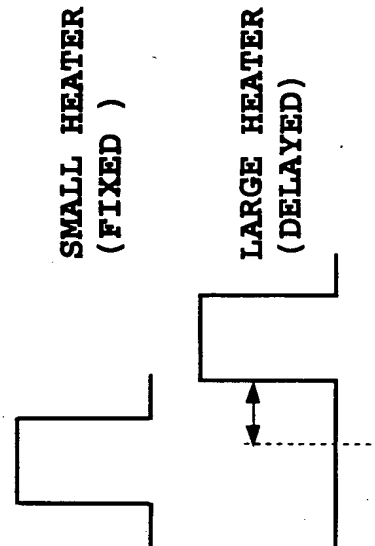


FIG. 21B

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SH1: SMALL HEATER
SH2: LARGE HEATER

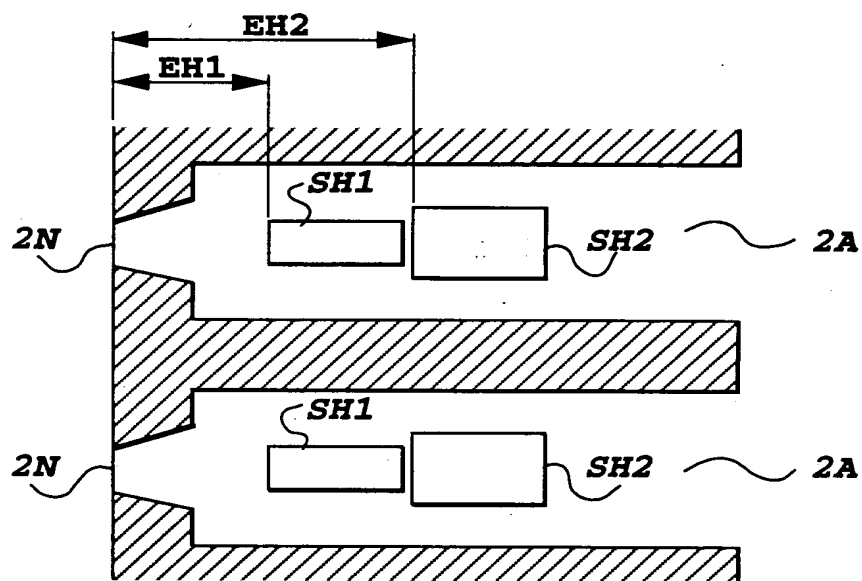


FIG.22

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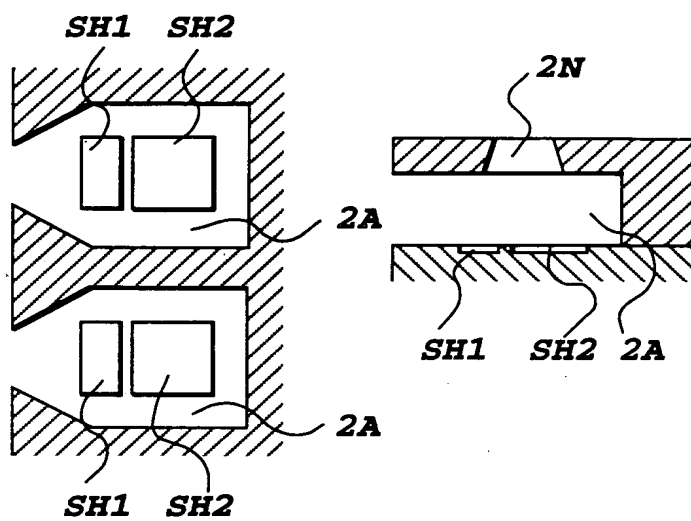
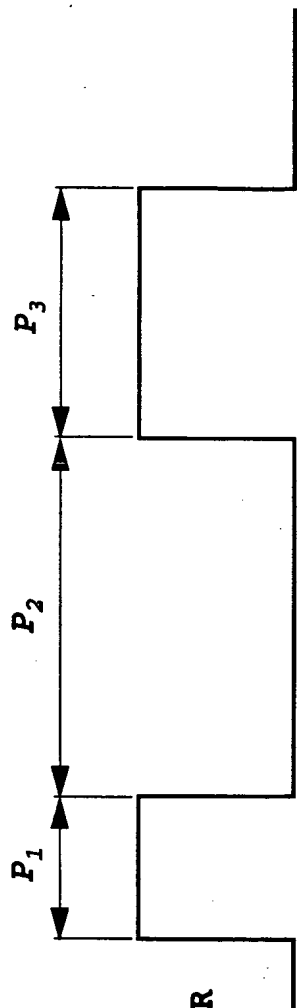
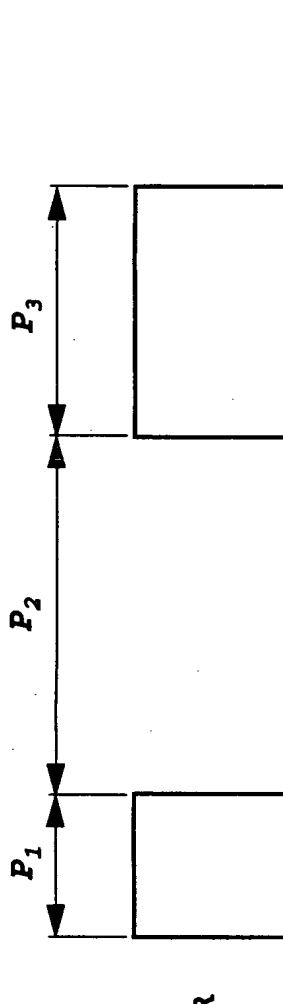


FIG. 23



PULSE FOR SMALL HEATER

FIG.24A



PULSE FOR LARGE HEATER

FIG.24B

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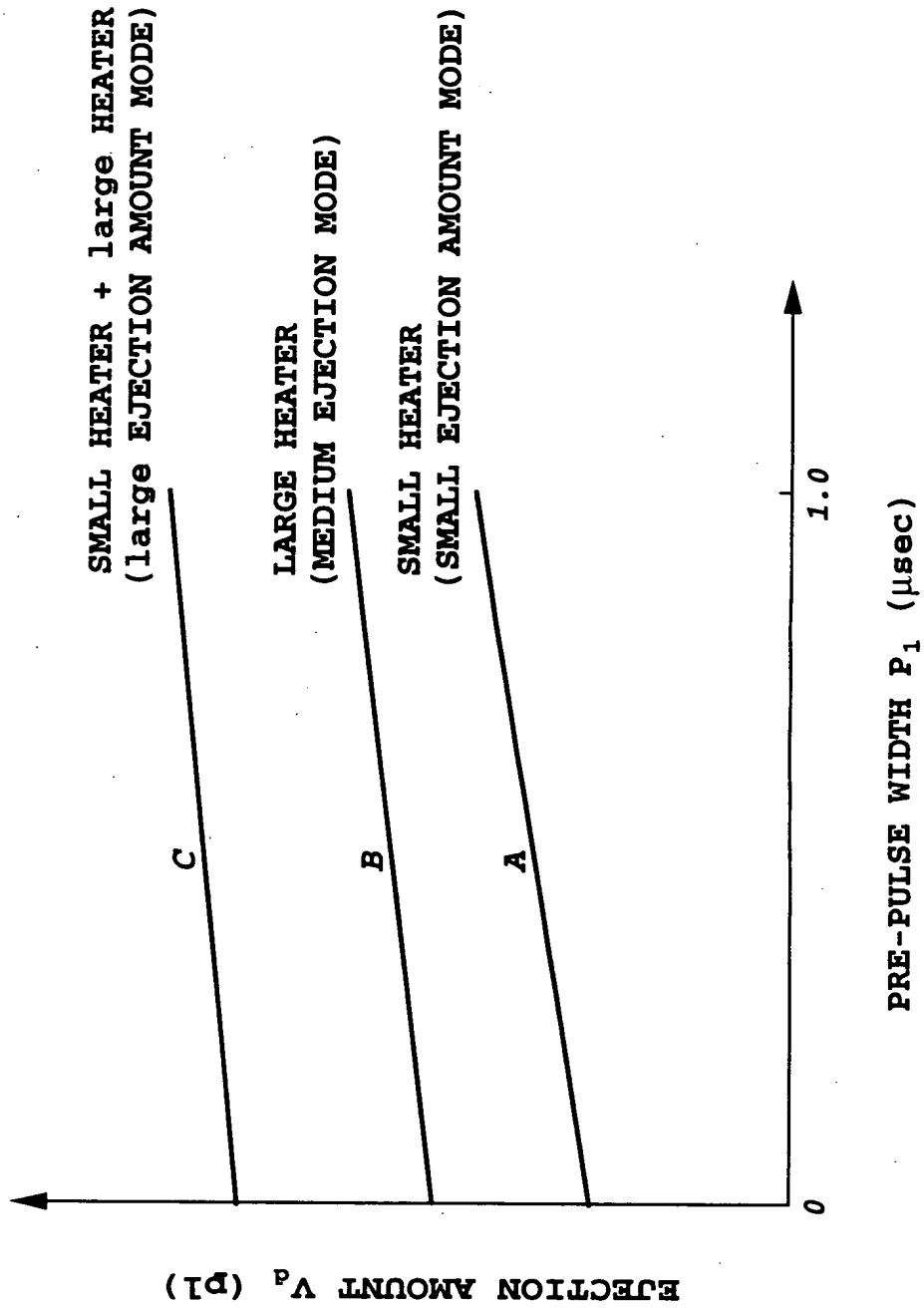


FIG.25

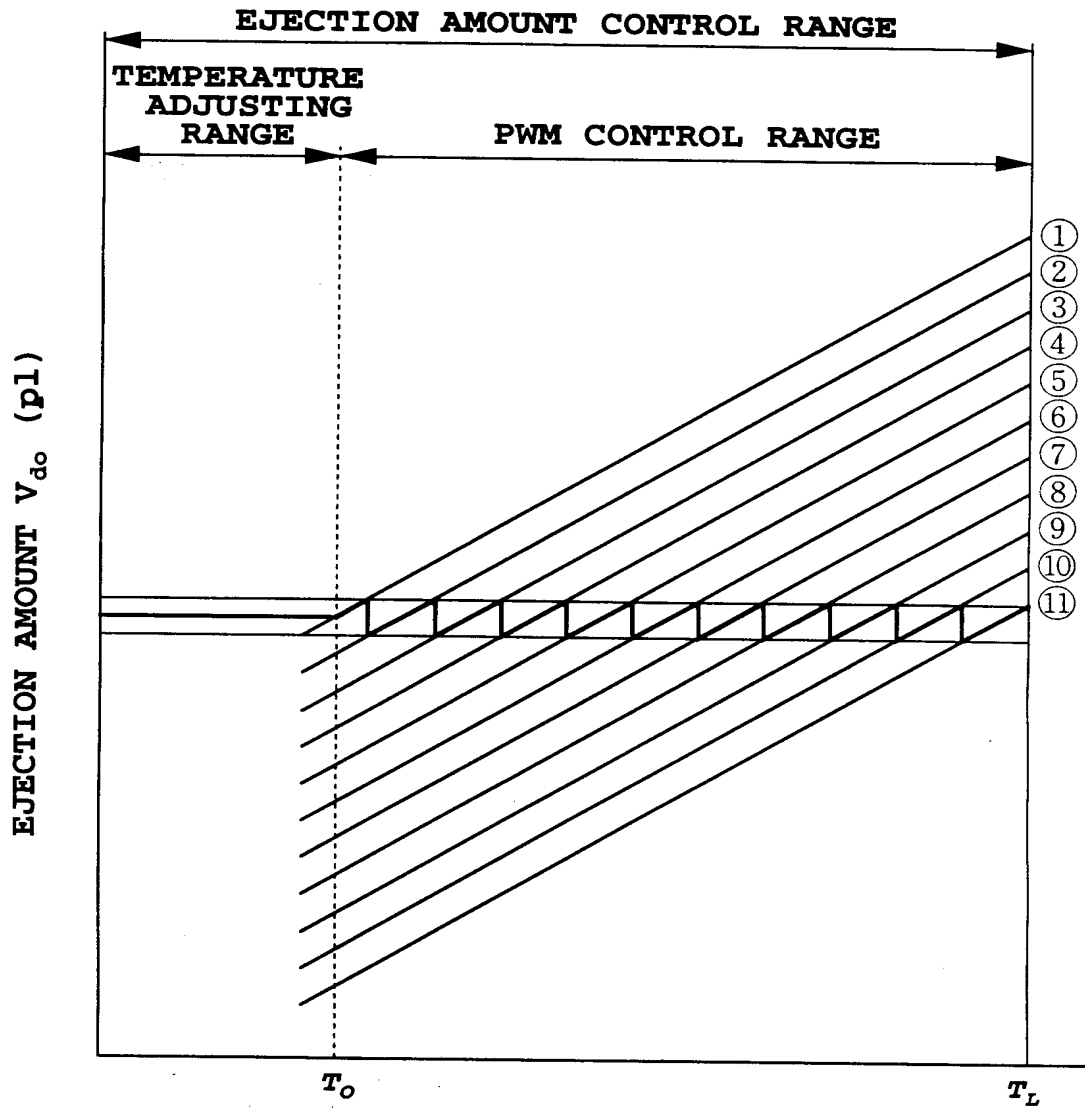


FIG.26

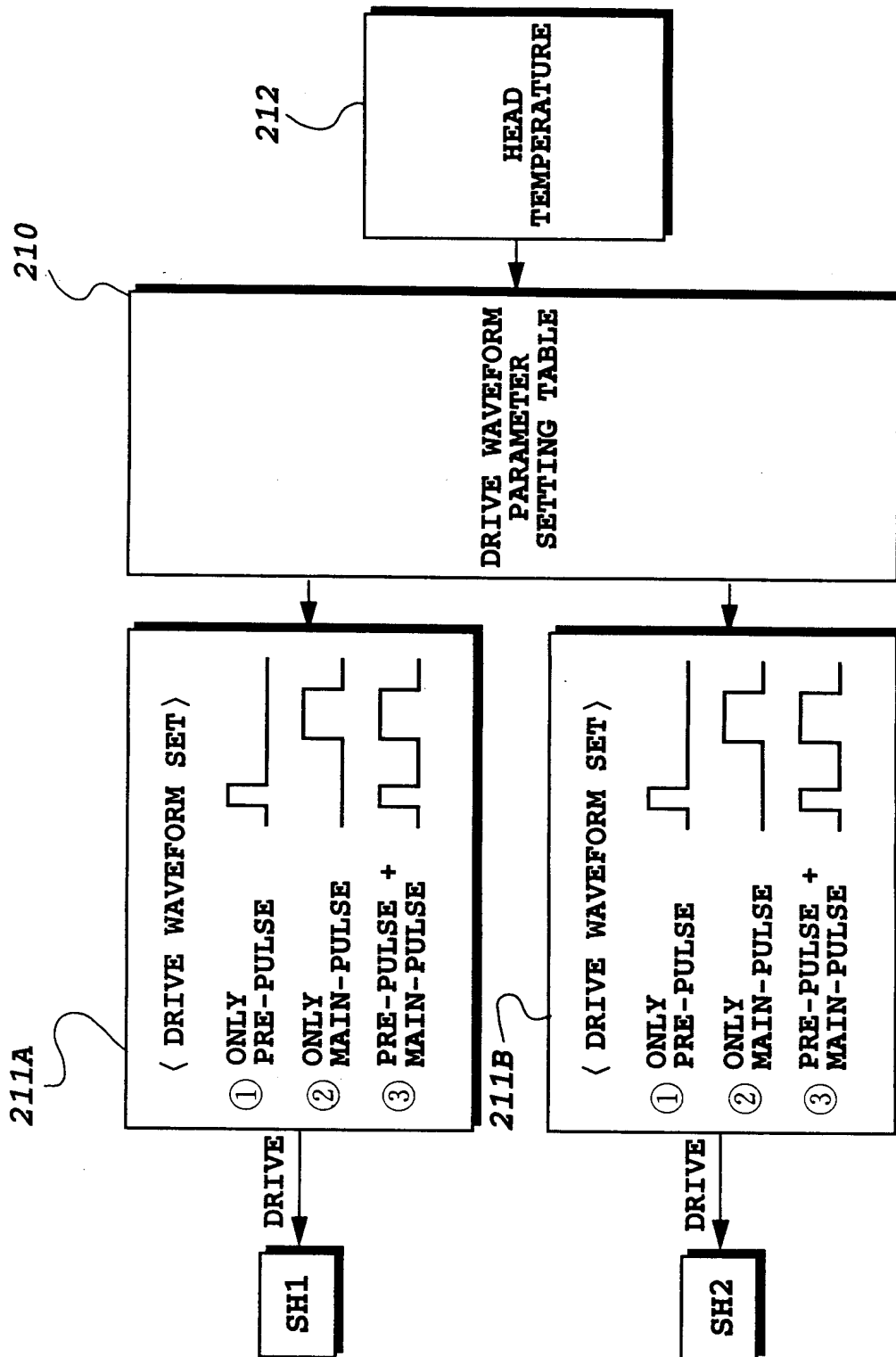


FIG. 27

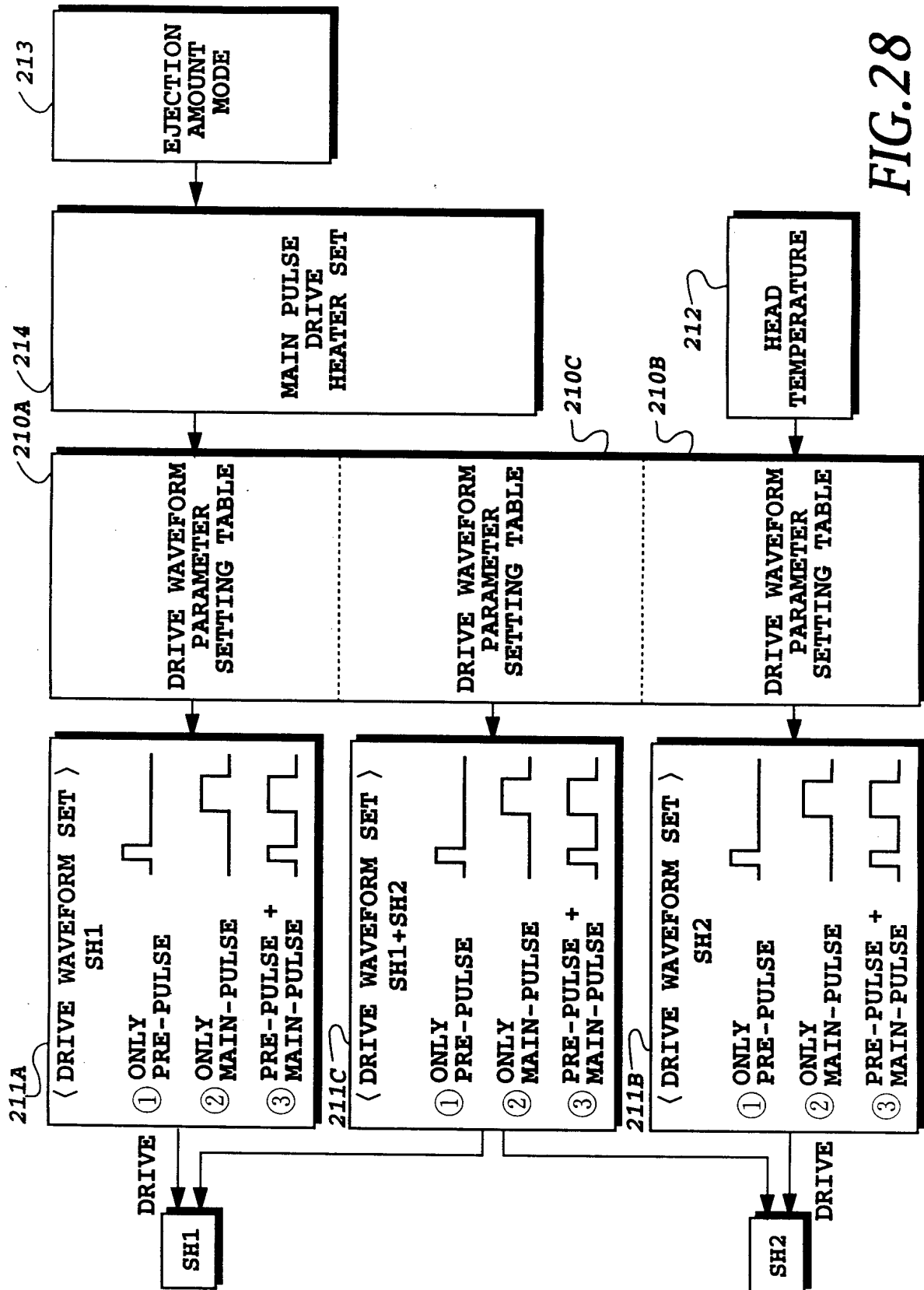


FIG. 28

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EJECTION AMOUNT MODE	MAIN HEAT PULSE DRIVEN HEATER	PRE-HEAD PULSE DRIVEN HEATER
SMALL	SH1	SH1
		SH2
		SH1+SH2
MEDIUM	SH2	SH1
		SH2
		SH1+SH2
LARGE	SH1+SH2	SH1
		SH2
		SH1+SH2

FIG.29

P₁ TABLE FOR SMALL EJECTION AMOUNT MODE

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	60~
SMALL HEATER PRE-PULSE (μsec)	1.0	0.950	0.900	0.850	0.800	0.750	0.700	0.650	0.600	0.550	0.500	0.450	0.400	0.350	0.300	0.250	0.200	0.150	0.10
LARGE HEATER PRE-PULSE (μsec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(15p1)

FIG.30A

P₁ TABLE FOR MEDIUM EJECTION AMOUNT MODE

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	60~
SMALL HEATER PRE-PULSE (μsec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LARGE HEATER PRE-PULSE (μsec)	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0	0	0	0	0	0	0	0	0

(25p1)

FIG.30B

P₁ TABLE FOR LARGE EJECTION AMOUNT MODE

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	~60
SMALL HEATER PRE-PULSE (μsec)	1.0	0.95	0.90	0.85	0.80	0.75	0.70	0.65	0.60	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.10
LARGE HEATER PRE-PULSE (μsec)	1.0	0.95	0.90	0.85	0.80	0.75	0.70	0.65	0.60	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.10

(40pl)

FIG.30C

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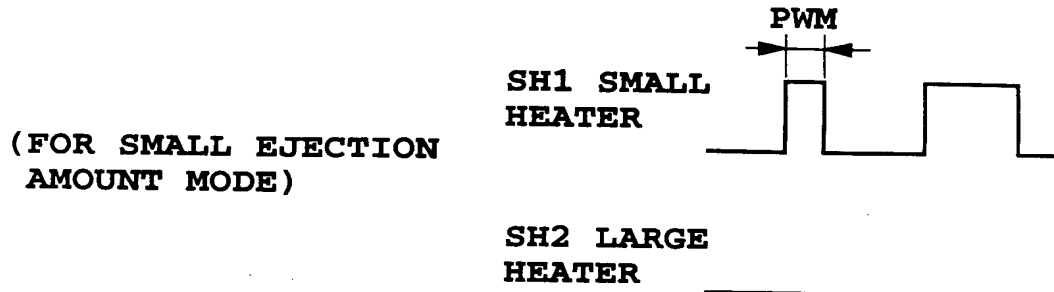


FIG.31A

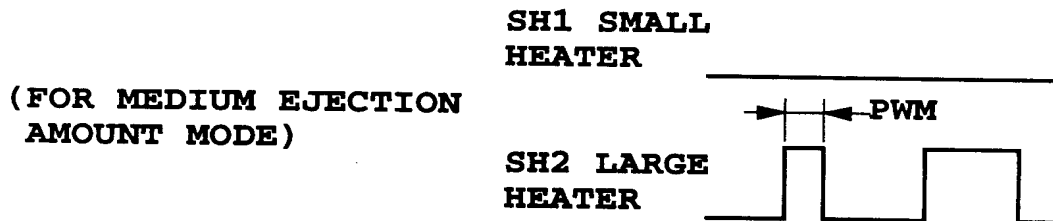


FIG.31B

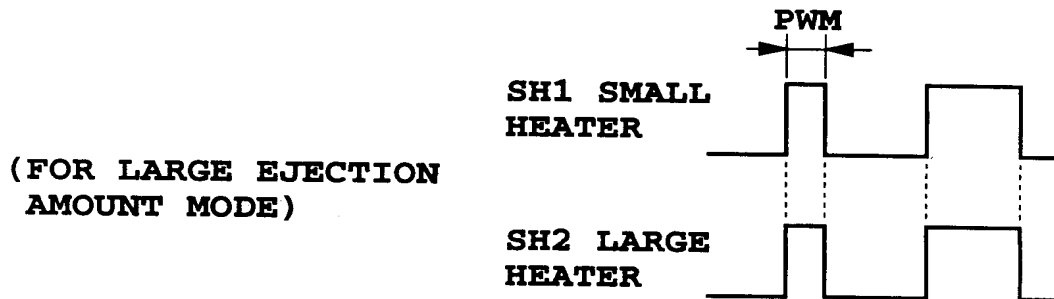


FIG.31C

P₁ TABLE FOR SMALL EJECTION AMOUNT MODE

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	60~
SMALL HEATER PRE-PULSE (μsec)	1.0	0.950	0.900	0.850	0.800	0.750	0.700	0.650	0.600	0.550	0.500	0.450	0.400	0.350	0.300	0.250	0.200	0.150	0.10
LARGE HEATER PRE-PULSE (μsec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(15p1)

FIG.32A

P₁ TABLE FOR MEDIUM EJECTION AMOUNT MODE

[illegible]

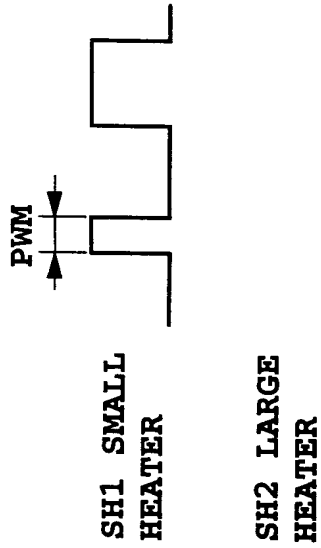
FIG. 32B

P₁ TABLE FOR LARGE EJECTION AMOUNT MODE

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	60~
SMALL HEATER PRE-PULSE (μsec)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2
LARGE HEATER PRE-PULSE (μsec)	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0	0	0	0	0	0	0	0	0

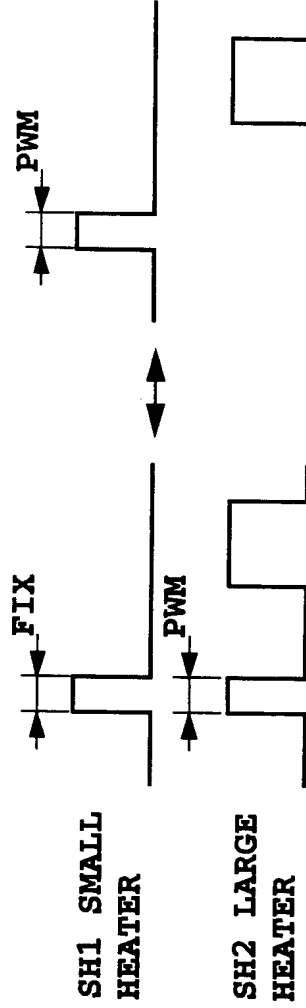
(40p1)

FIG.32C



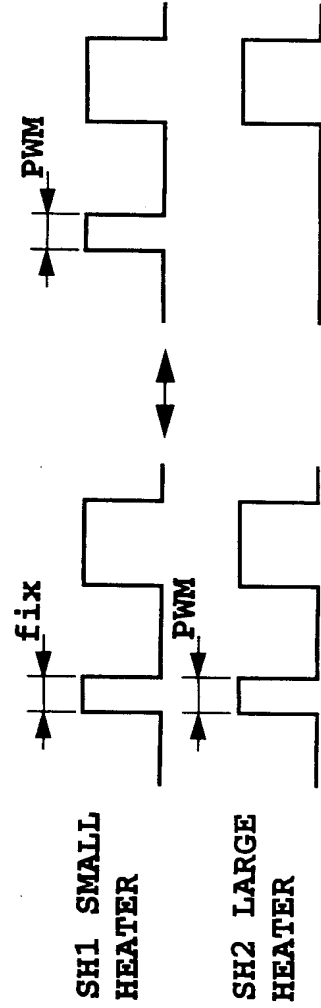
(FOR SMALL EJECTION
AMOUNT MODE)

FIG. 33A



(FOR MEDIUM EJECTION
AMOUNT MODE)

FIG. 33B



(FOR LARGE EJECTION
AMOUNT MODE)

FIG. 33C

**P₁ TABLE FOR SMALL EJECTION AMOUNT MODE
(FOR LOW TEMPERATURE)**

HEAD T TEMPERATURE (°C)	~16	~18	~20	~22	~24	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	50~
SMALL HEATER PRE-PULSE (μsec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LARGE HEATER PRE-PULSE (μsec)	2.0	1.93	1.86	1.8	1.73	1.66	1.6	1.53	1.46	1.4	1.33	1.26	1.2	1.13	1.06	1.0	0.93	0.87	0.80

(15pl)

FIG.34A

P₁ TABLE FOR MEDIUM EJECTION AMOUNT MODE
(FOR LOW TEMPERATURE)

HEAD T TEMPERATURE (°C)	~16	~18	~20	~22	~24	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	50~
SMALL HEATER PRE-PULSE (μsec)	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.6	1.4	1.2	1.0	0.8	0.6	0.4	0.2	0	0	0	0
LARGE HEATER PRE-PULSE (μsec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(25pl)

FIG.34B

**P₁ TABLE FOR LARGE EJECTION AMOUNT MODE
(FOR LOW TEMPERATURE)**

HEAD T TEMPERATURE (°C)	~16	~18	~20	~22	~24	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	50~
SMALL HEATER PRE-PULSE (μsec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LARGE HEATER PRE-PULSE (μsec)	2.0	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2

(40pl)

FIG.35A

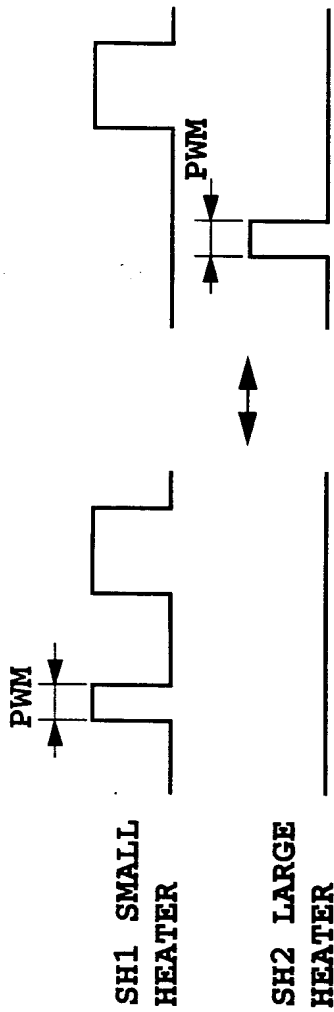
**P₁ TABLE FOR LARGE EJECTION AMOUNT MODE
(FOR HIGH TEMPERATURE)**

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	60~
SMALL HEATER PRE-PULSE (μsec)	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0..30.2	0.1	0	0
LARGE HEATER PRE-PULSE (μsec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(40p1)

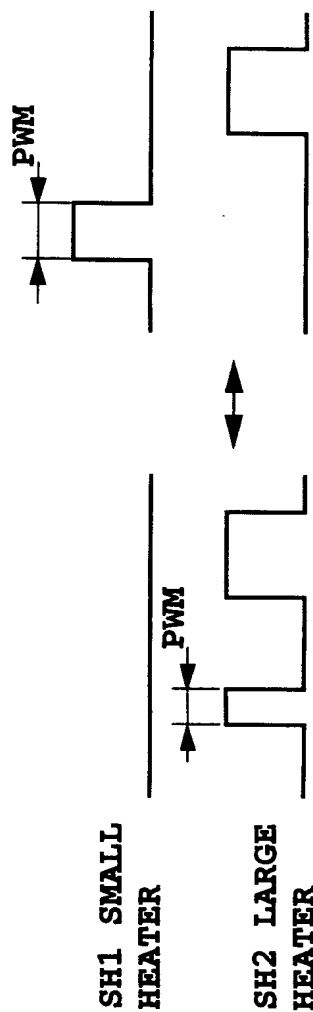
FIG.35B

(FOR HIGH TEMPERATURE) (FOR LOW TEMPERATURE)



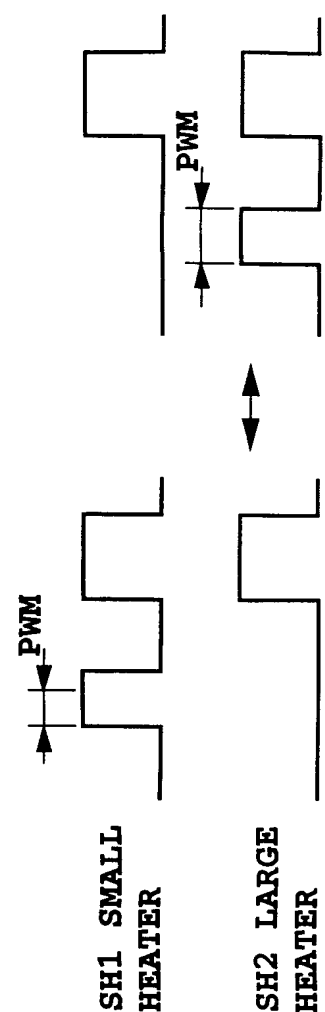
(FOR SMALL EJECTION AMOUNT MODE)

FIG. 36A



(FOR MEDIUM EJECTION AMOUNT MODE)

FIG. 36B



(FOR LARGE EJECTION AMOUNT MODE)

FIG. 36C

OFF TIME P₂ TABLE FOR SMALL EJECTION AMOUNT MODE

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	60~
SMALL HEATER OFF TIME (μsec)	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.4	2.3	2.2
LARGE HEATER OFF TIME (μsec)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(15pl)

FIG.37A

(25p1)

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	~60
SMALL HEATER OFF TIME (μsec)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LARGE HEATER OFF TIME (μsec)	4.0	3.8	3.6	3.4	3.2	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.6	1.4	1.2	1.0	0.8	0.6	0.4

FIG. 37B

OFF TIME P₂ TABLE FOR LARGE EJECTION AMOUNT MODE

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	60~
SMALL HEATER OFF TIME (μsec)	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.4	2.3	2.2
LARGE HEATER OFF TIME (μsec)	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.4	2.3	2.2

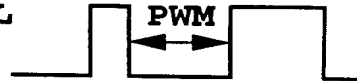
(40p1)

FIG.37C

(FOR SMALL EJECTION
AMOUNT MODE)

FIG.38A

SH1 SMALL
HEATER



SH2 LARGE
HEATER



(FOR MEDIUM EJECTION
AMOUNT MODE)

FIG.38B

SH1 SMALL
HEATER



SH2 LARGE
HEATER



(FOR LARGE EJECTION
AMOUNT MODE)

FIG.38C

SH1 SMALL
HEATER



SH2 LARGE
HEATER



OFF TIME P₂ TABLE FOR SMALL EJECTION AMOUNT MODE

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	60~
SMALL HEATER OFF TIME (μsec)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LARGE HEATER OFF TIME (μsec)	4.0	3.8	3.6	3.4	3.2	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.6	1.4	1.2	1.0	0.8	0.6	0.4

(15pl)

FIG.39A

OFF TIME P₂ TABLE FOR MEDIUM EJECTION AMOUNT MODE

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	60~
SMALL HEATER OFF TIME (μsec)	4.0	3.6	3.2	2.8	2.4	2.0	1.6	1.2	0.8	0.4	0								
LARGE HEATER OFF TIME (μsec)	-	-	-	-	-	-	-	-	-	-	-								

(25p1)

FIG.39B

OFF TIME P₂ TABLE FOR LARGE EJECTION AMOUNT MODE

HEAD T TEMPERATURE (°C)	~26	~28	~30	~32	~34	~36	~38	~40	~42	~44	~46	~48	~50	~52	~54	~56	~58	~60	~60
SMALL HEATER OFF TIME (μsec)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
LARGE HEATER OFF TIME (μsec)	4.0	3.7	3.5	3.4	3.3	3.25	3.2	3.15	3.1	3.05	3.0	2.95	2.9	2.85	2.8	2.75	2.7	2.65	2.6

(40p1)

FIG.39C

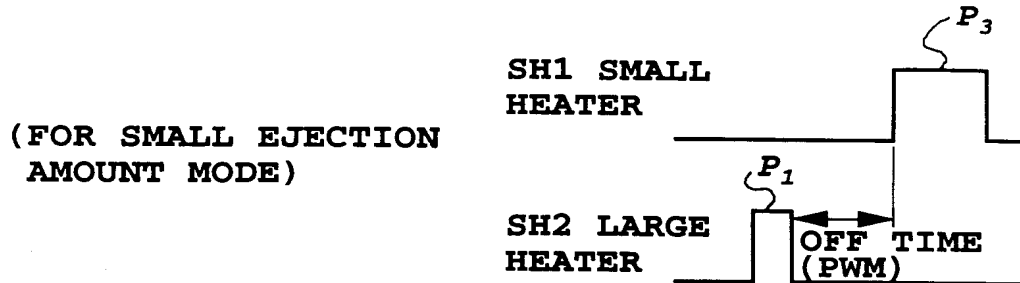


FIG.40A

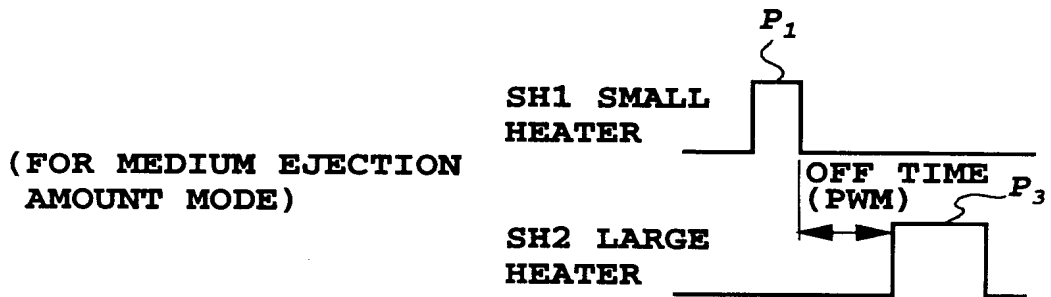


FIG.40B

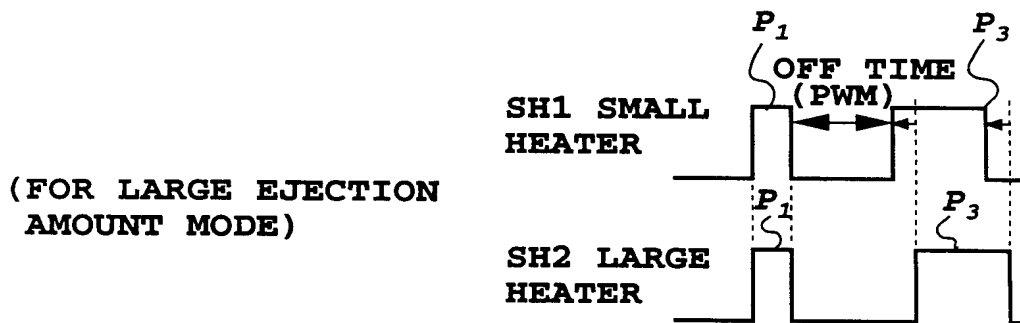


FIG.40C

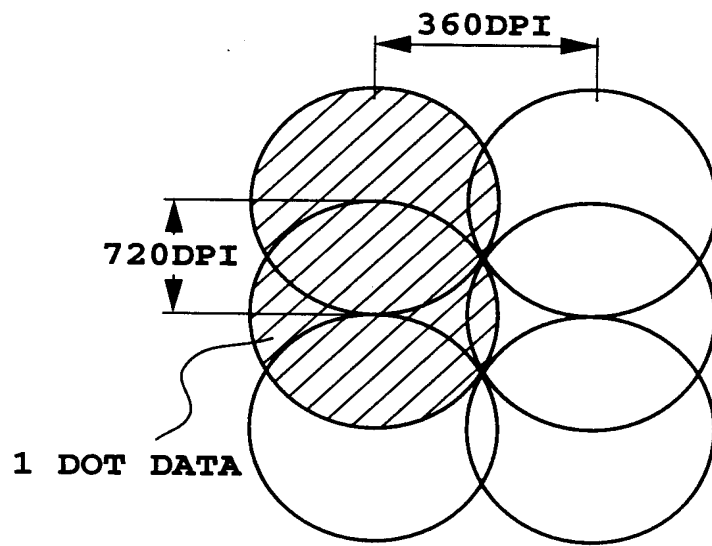


FIG.41

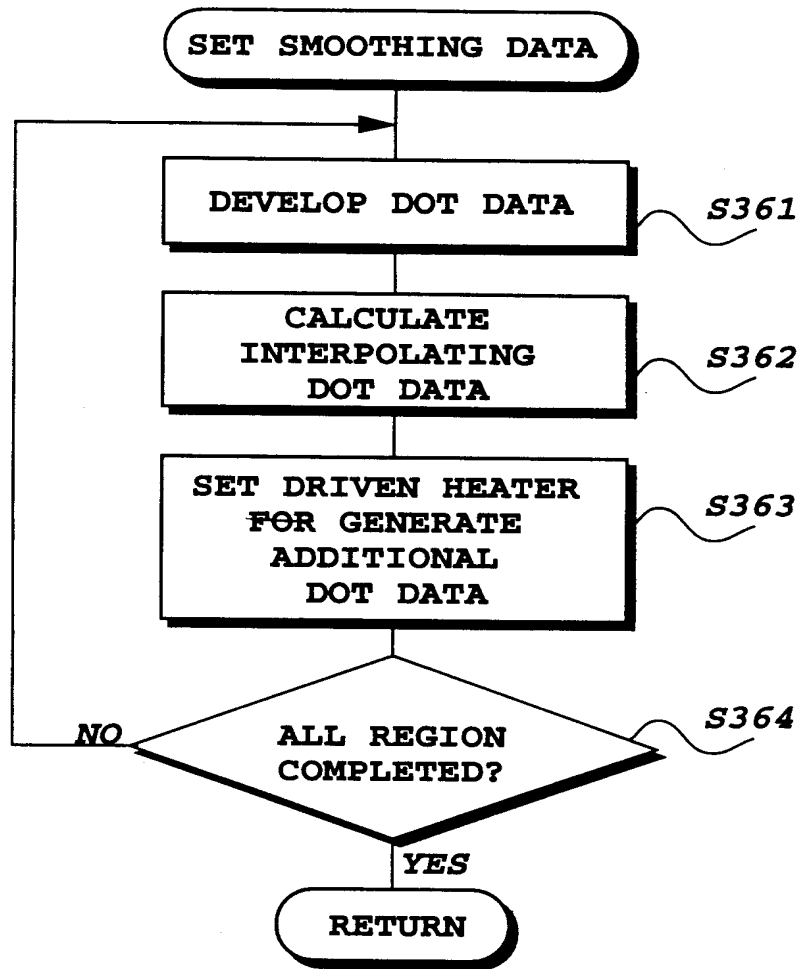


FIG. 42

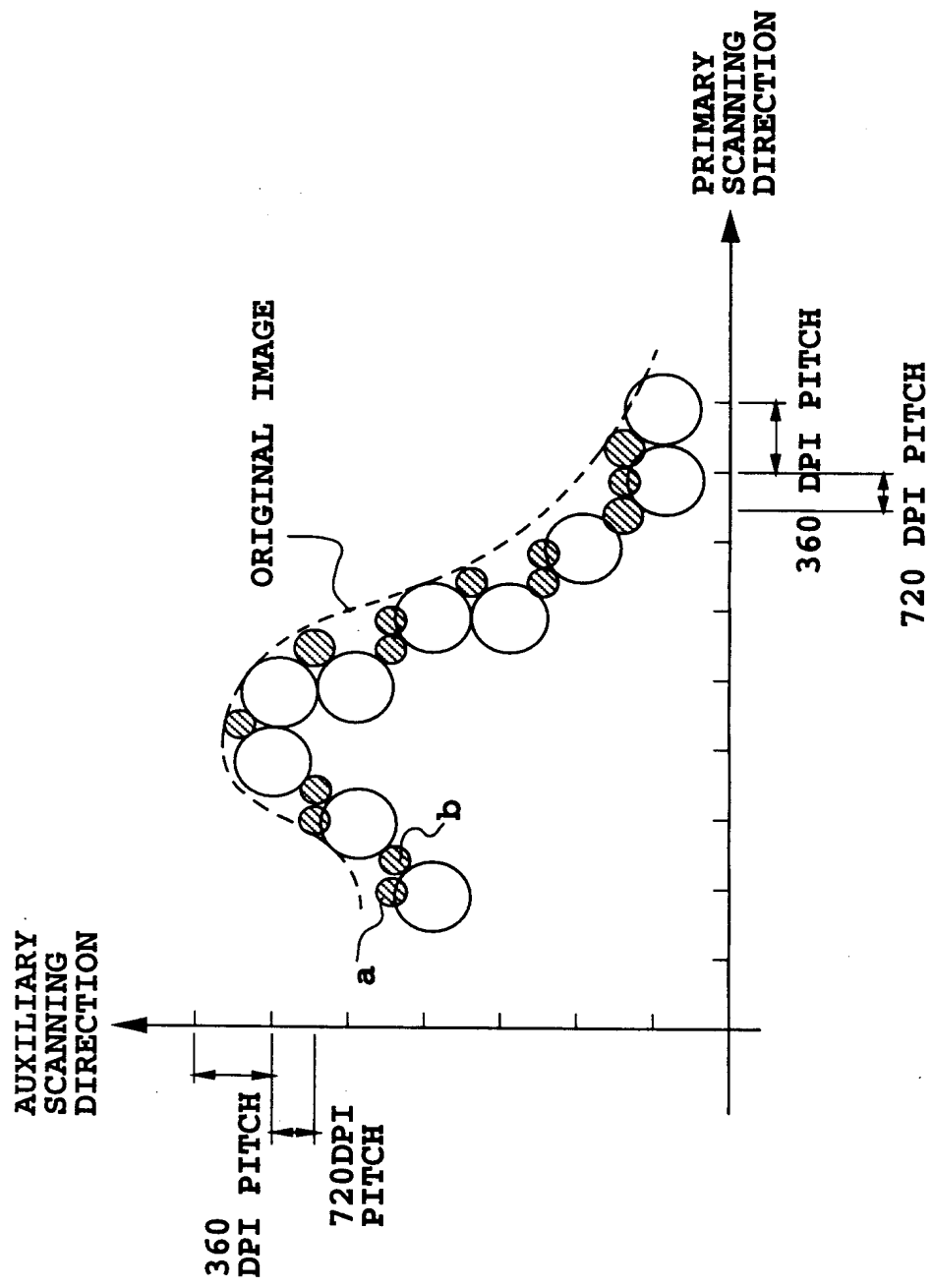


FIG.43

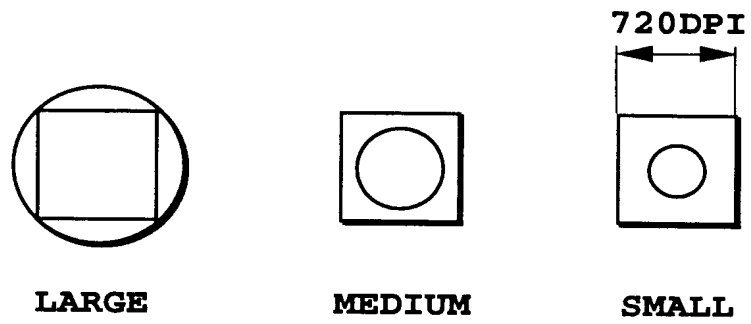


FIG.44

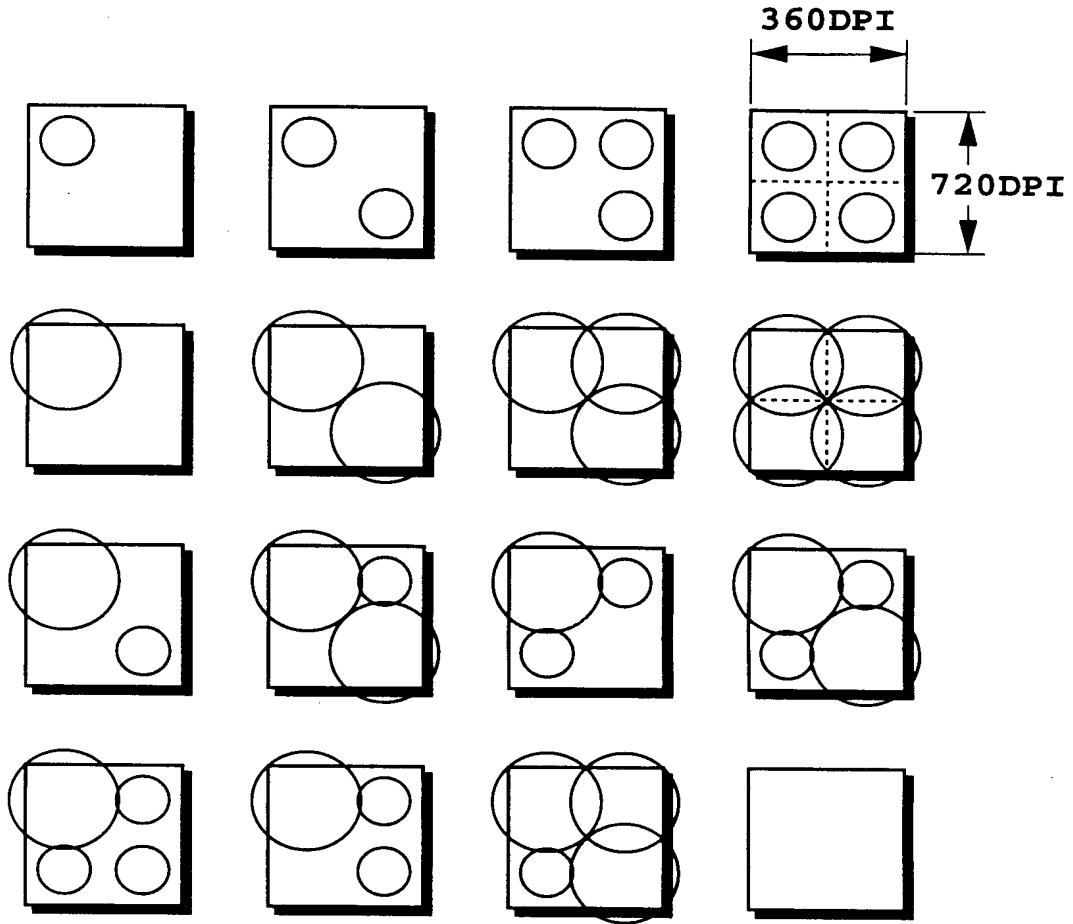


FIG.45

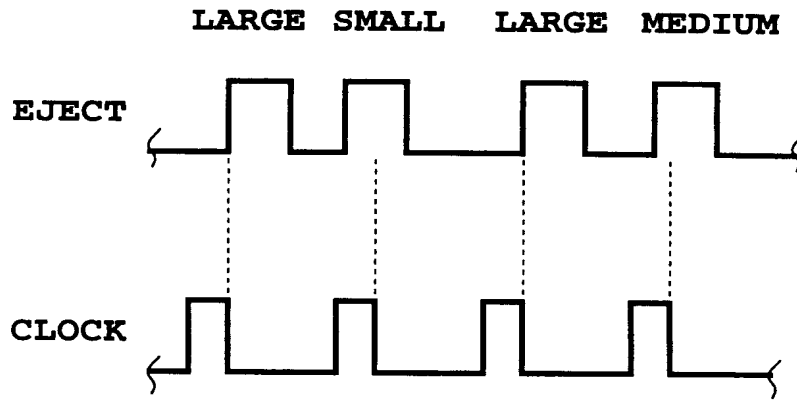


FIG.46A

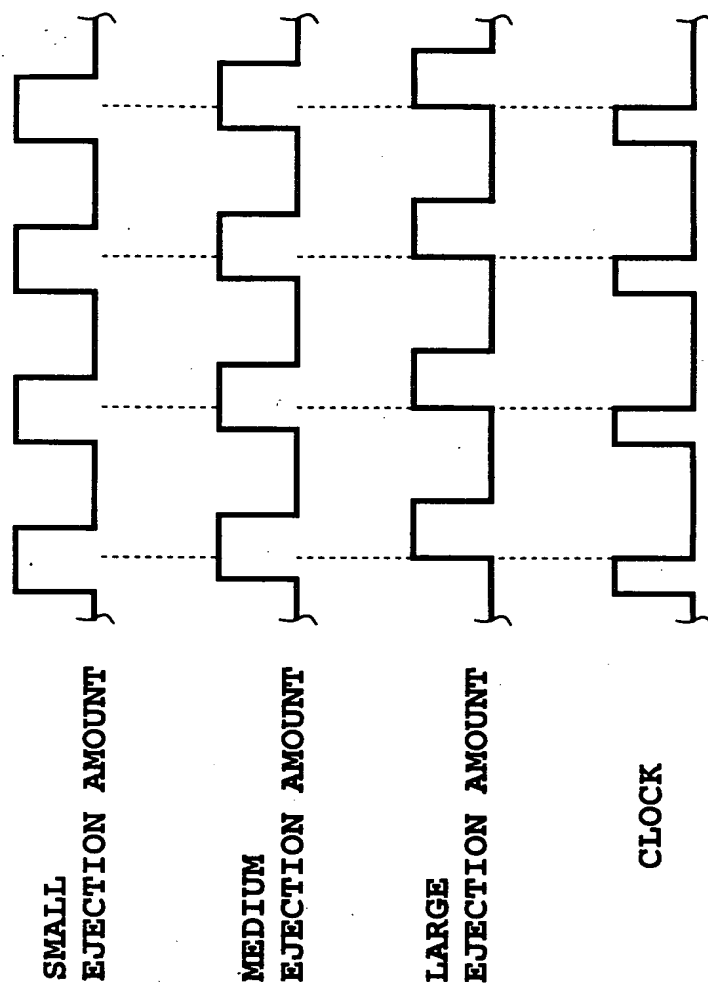


FIG.46B

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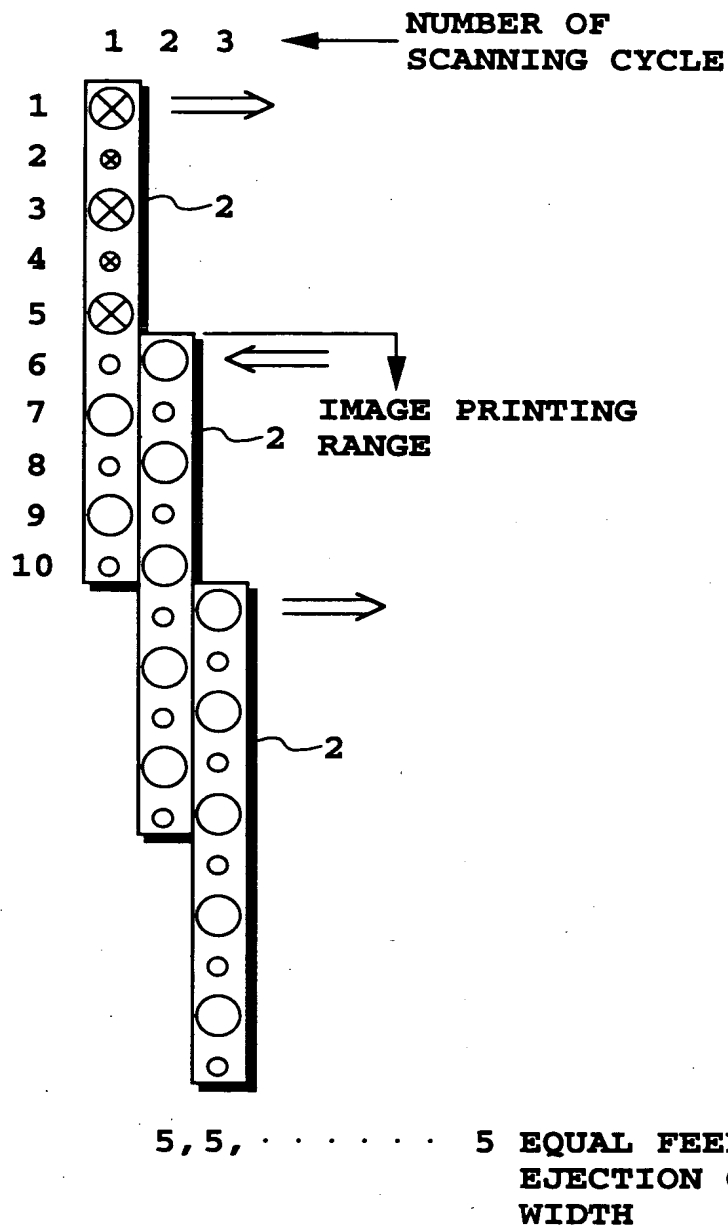


FIG.47

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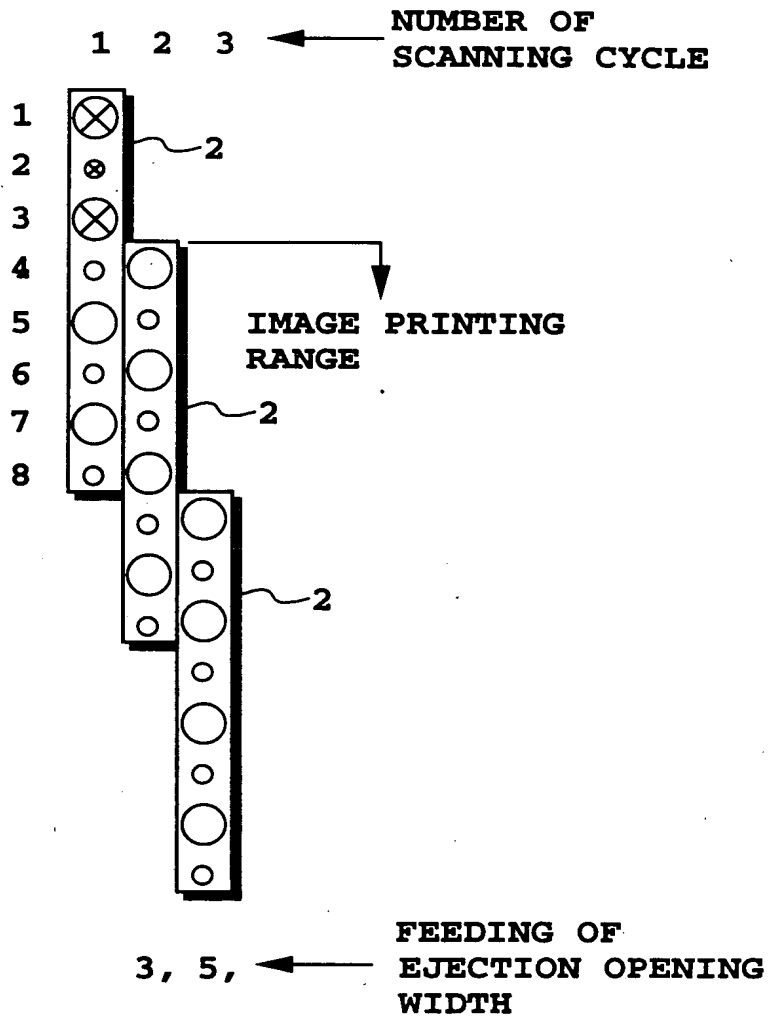


FIG.48

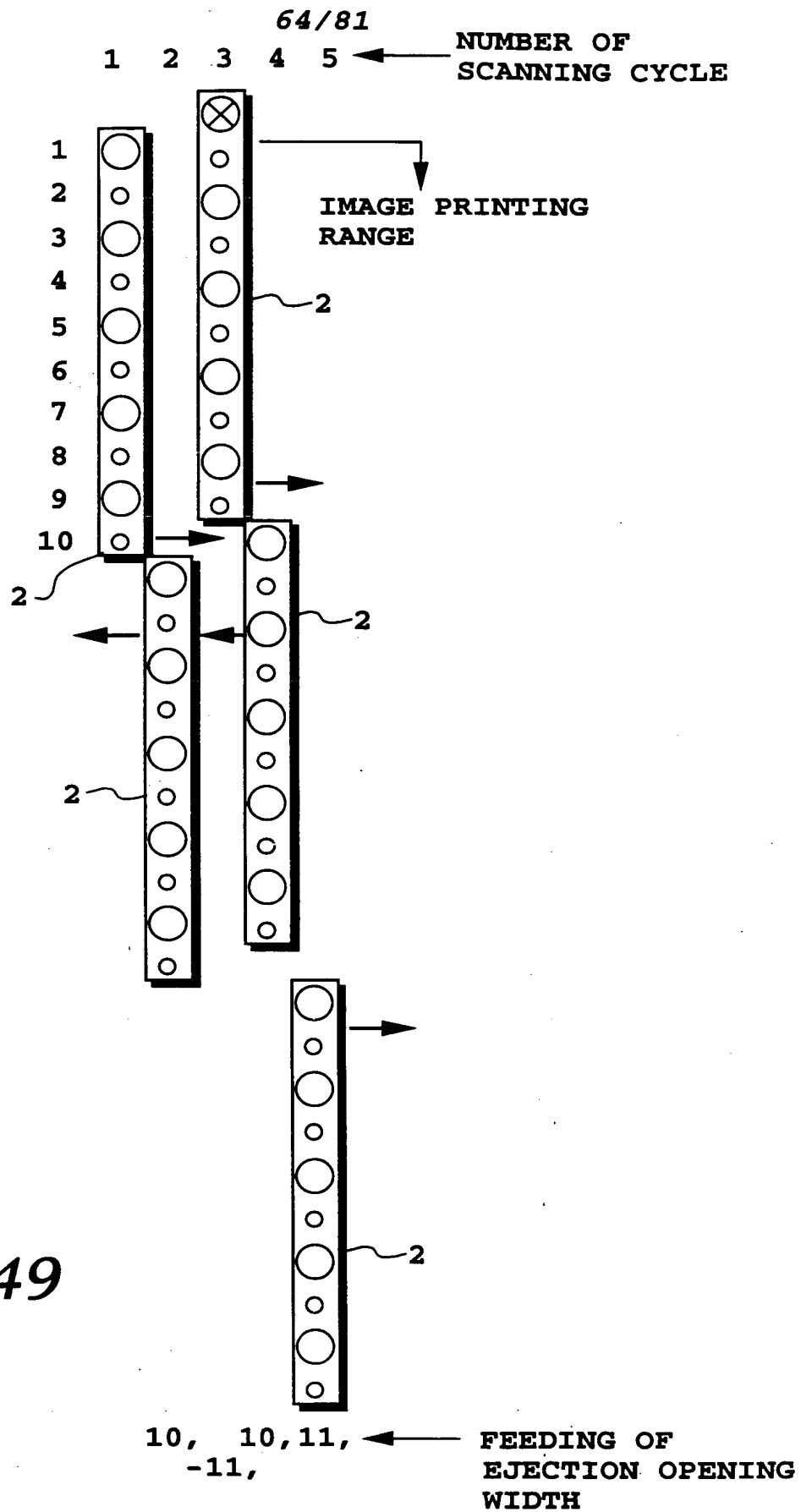
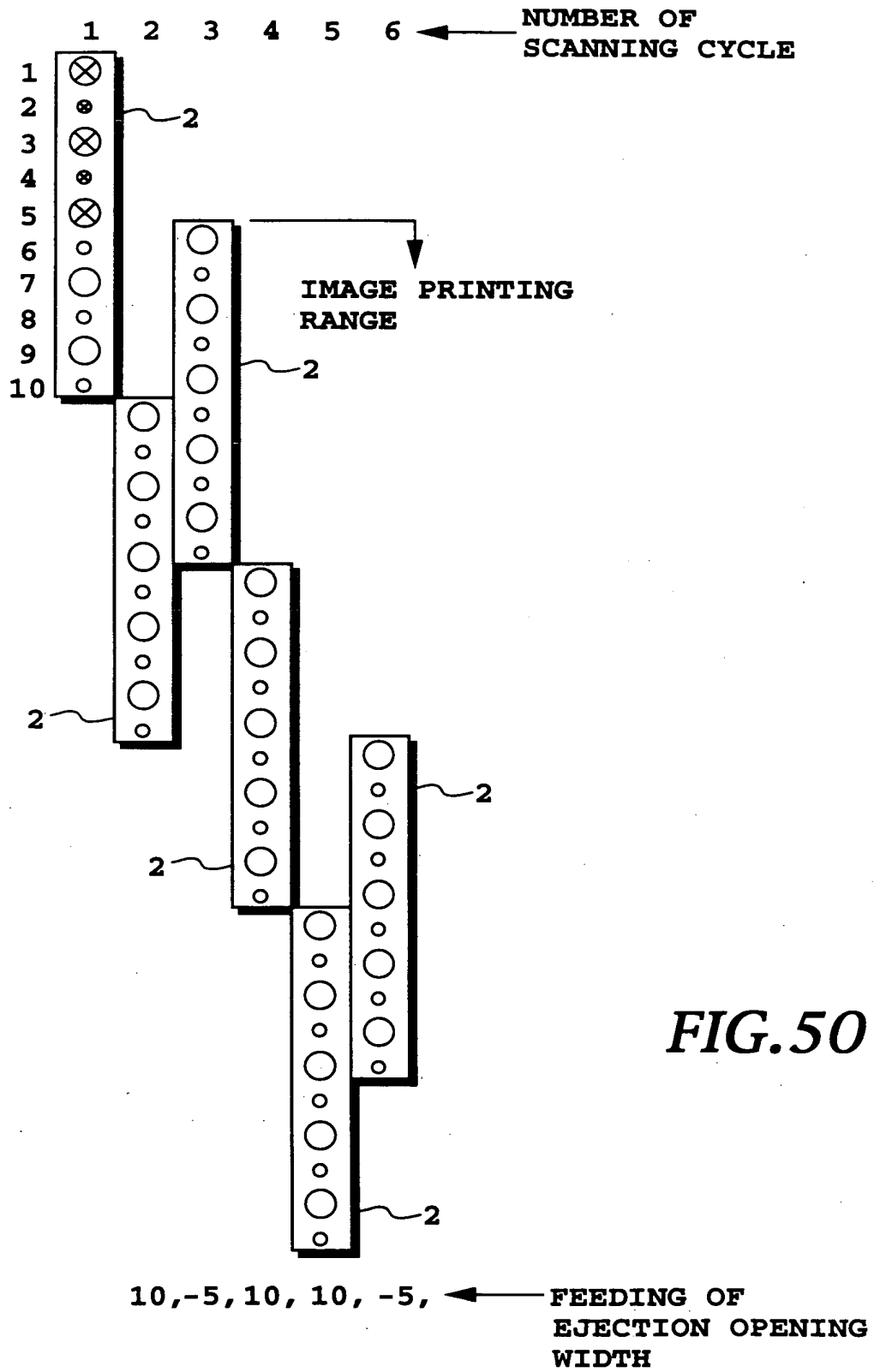


FIG.49

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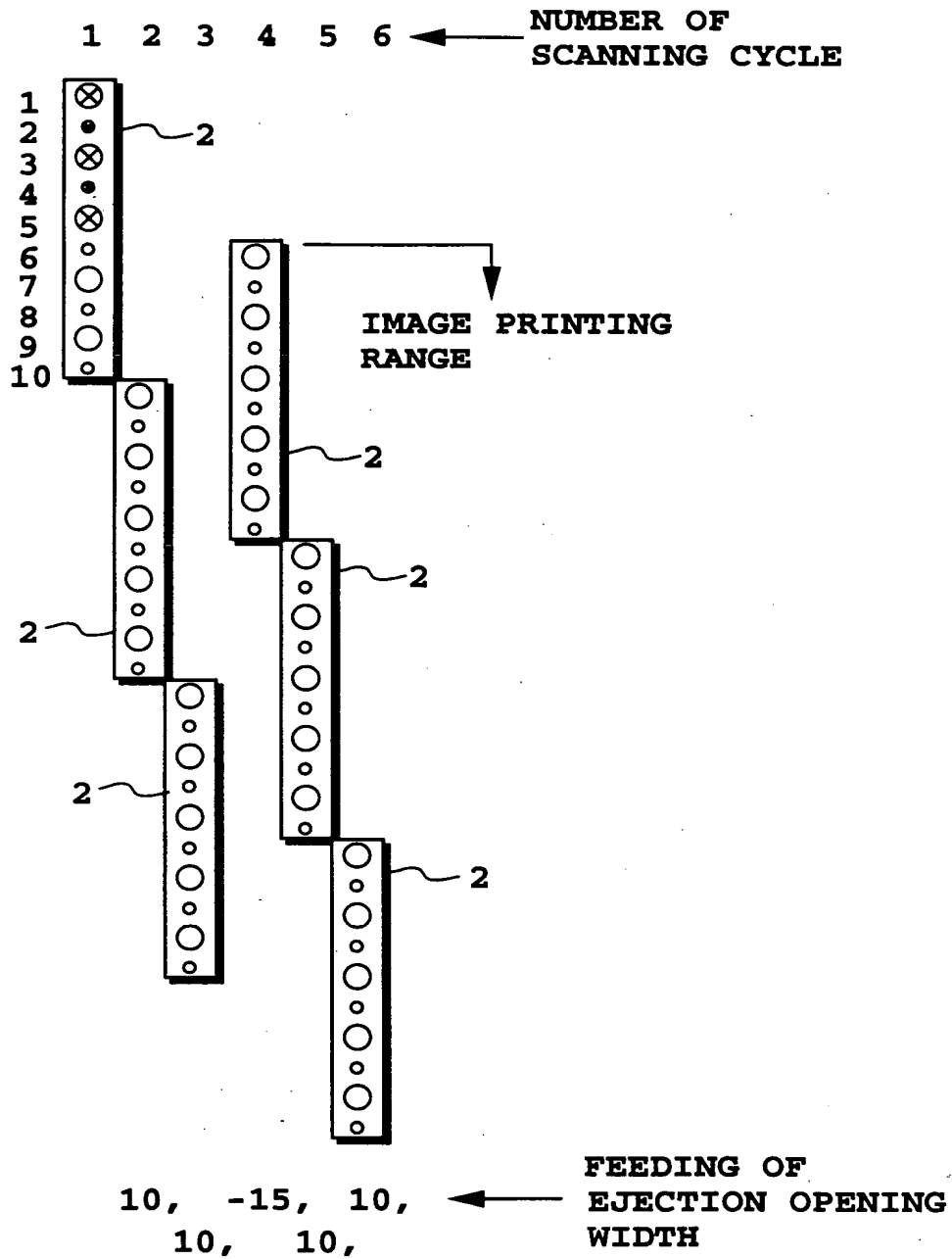


FIG.51

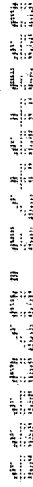


FIG. 52

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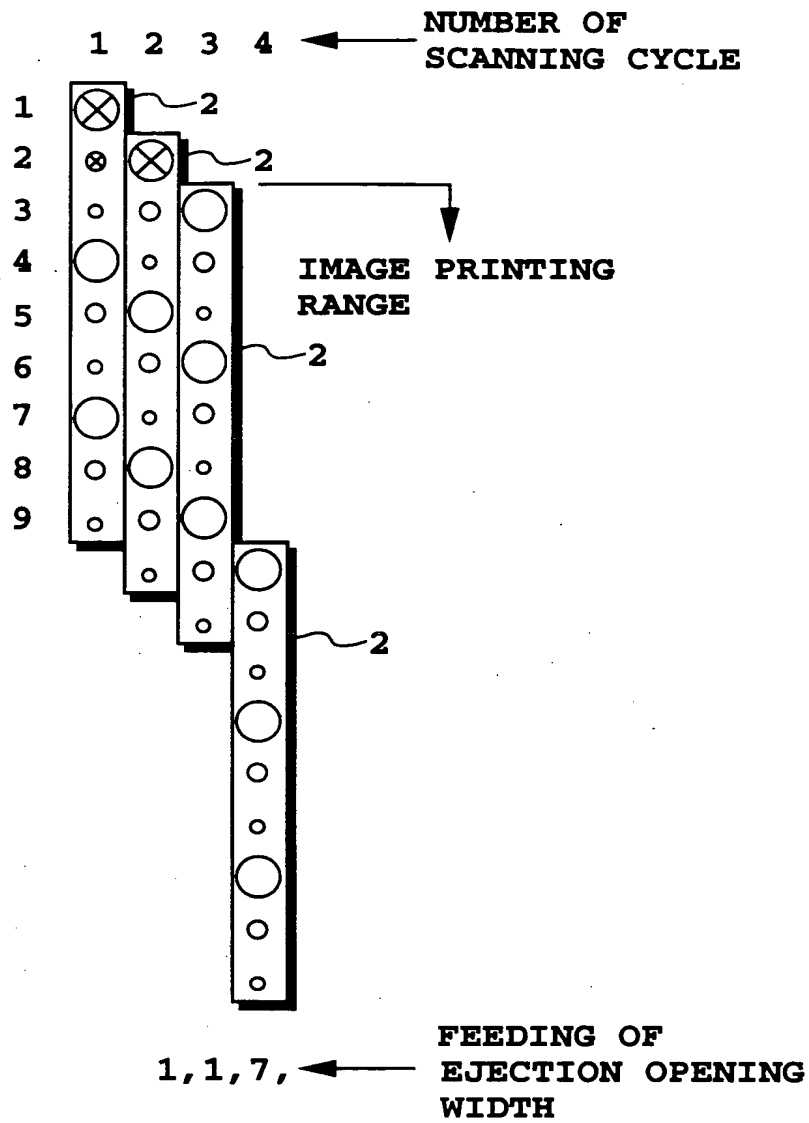


FIG.53

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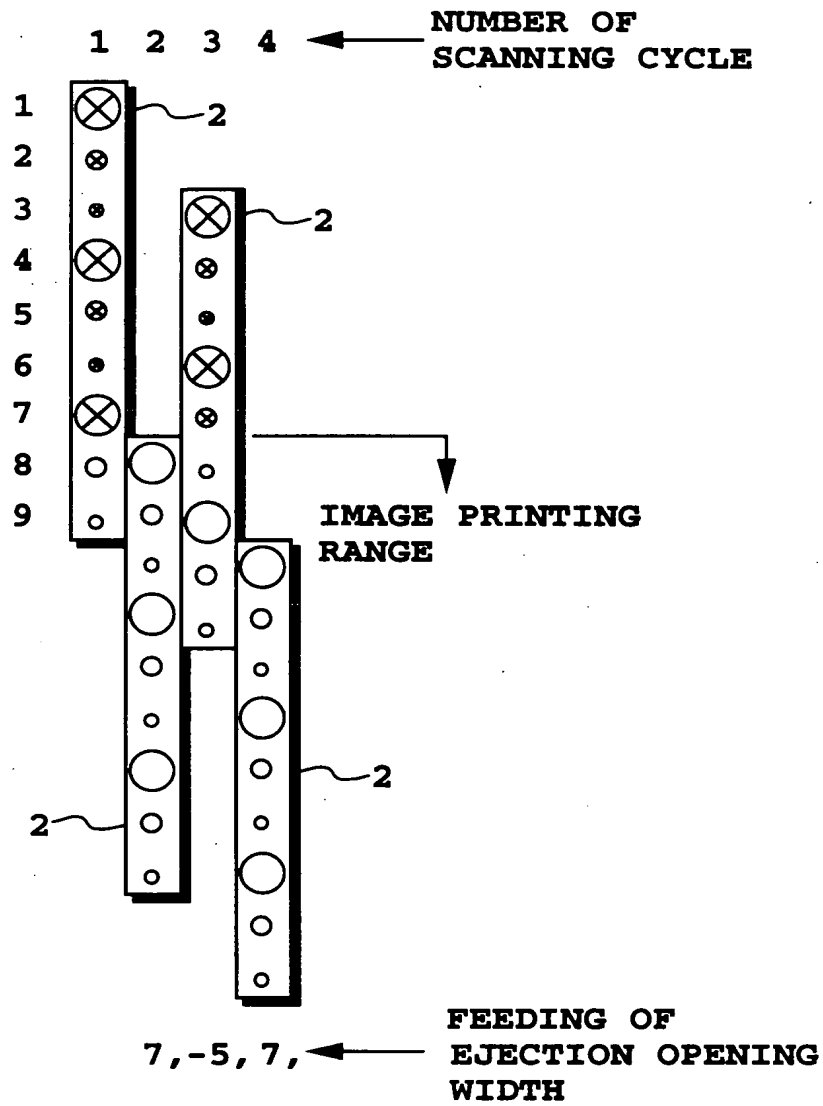


FIG.54

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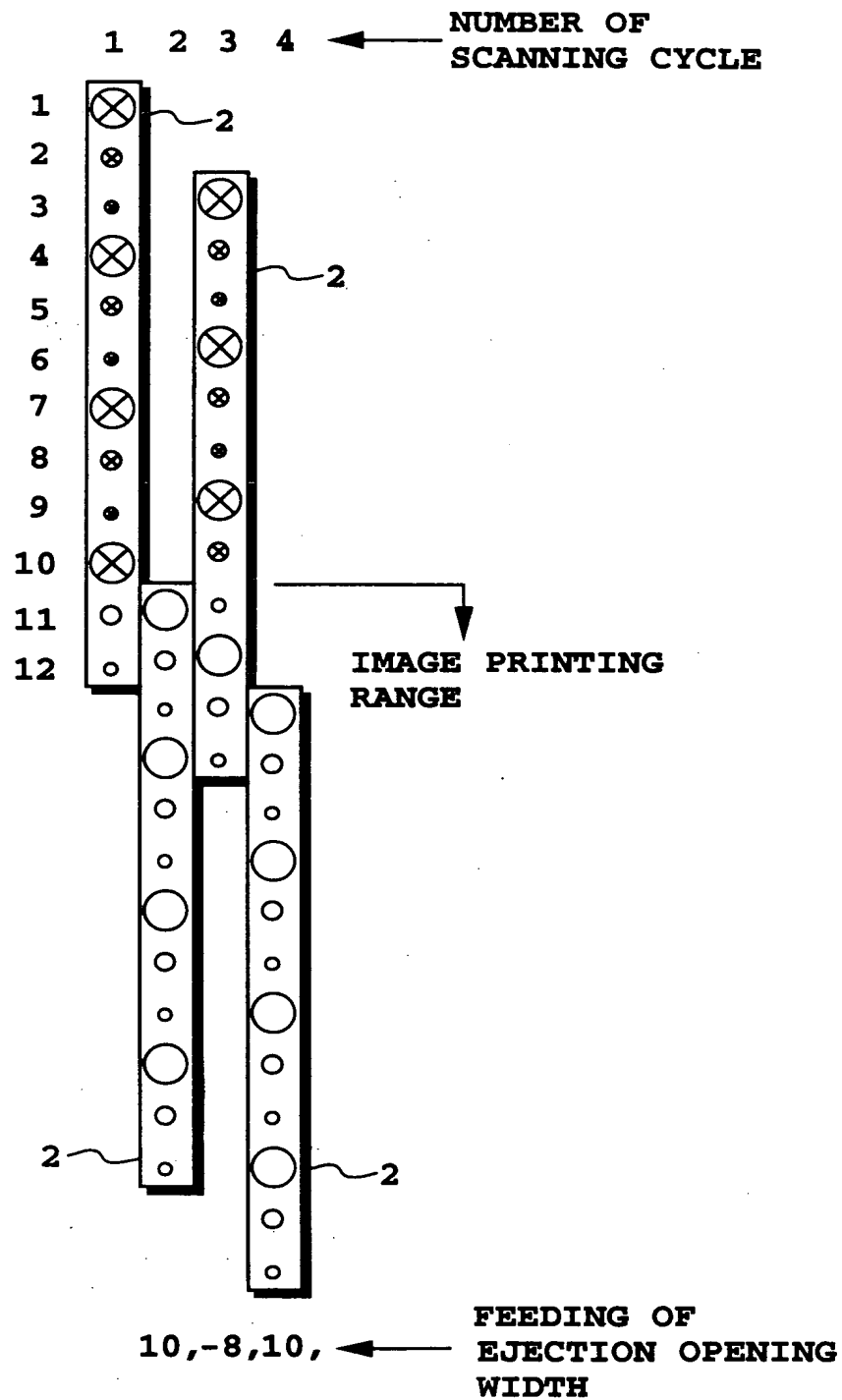


FIG.55

NUMBER OF
SCANNING CYCLE

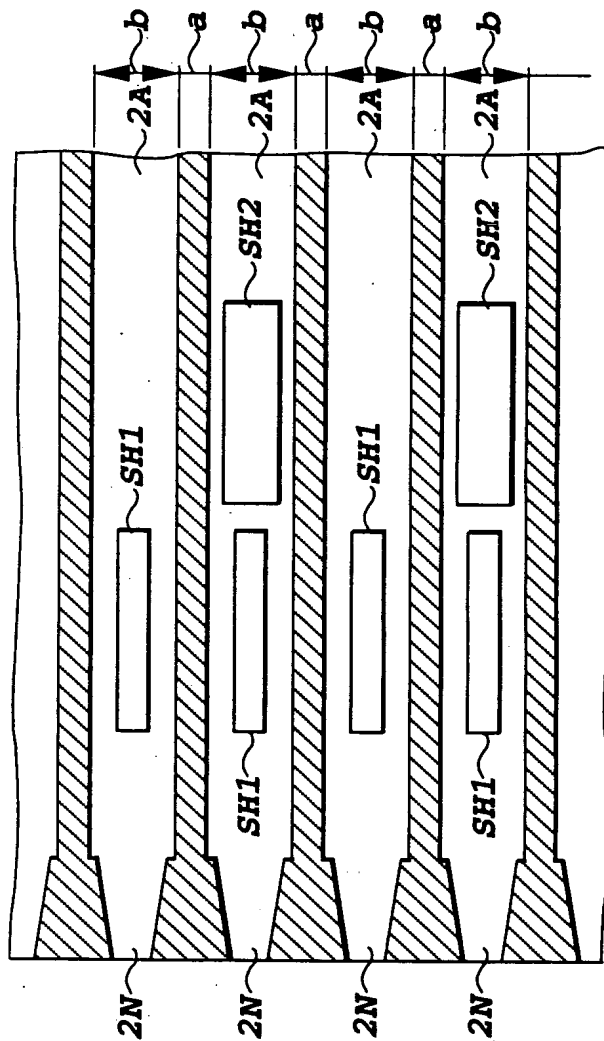


FIG.57A

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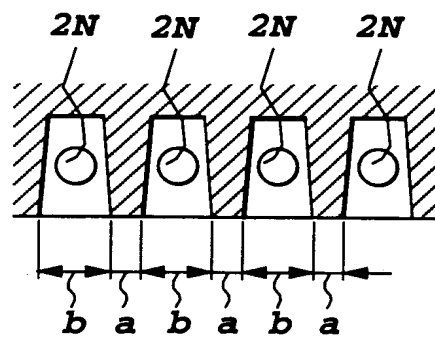


FIG.57B

SCANNED9

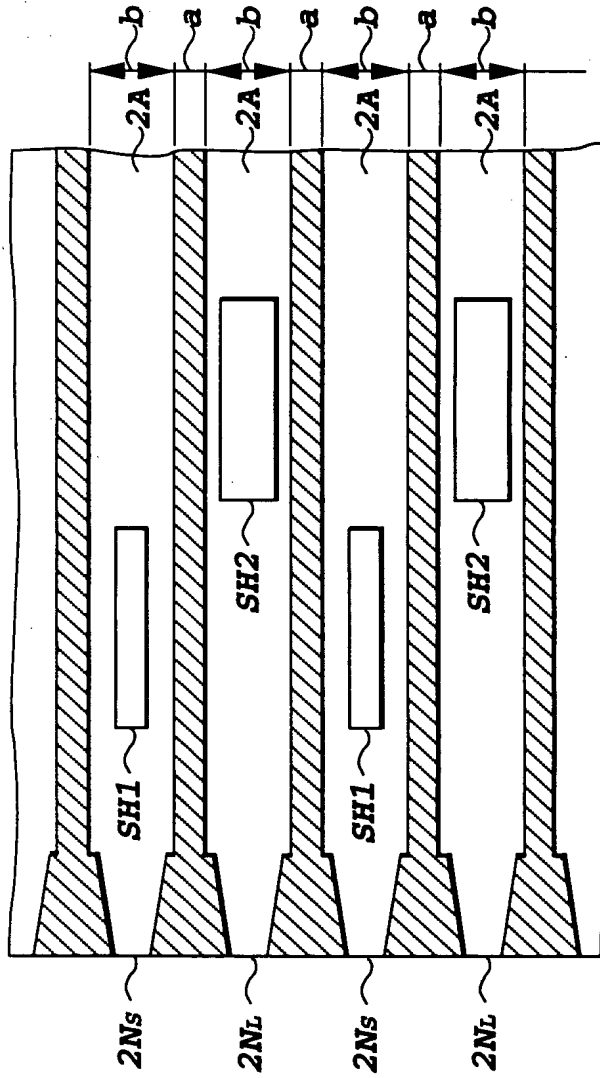


FIG. 58A

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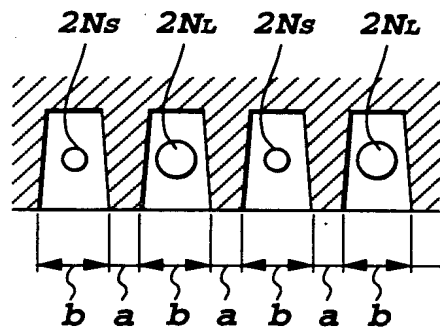


FIG.58B

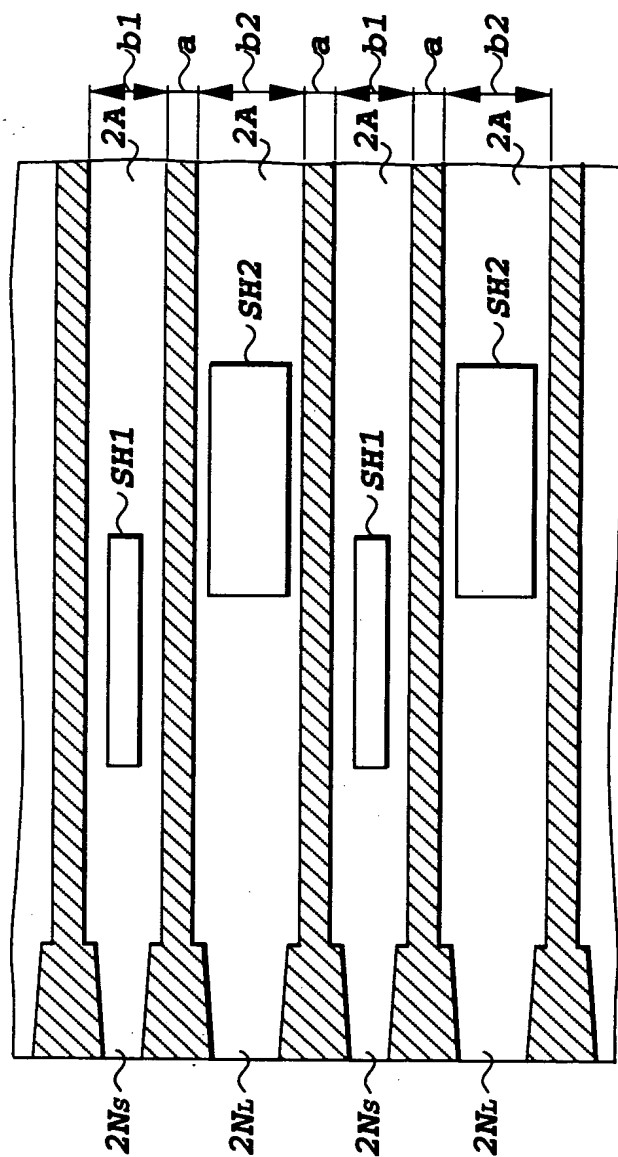


FIG. 59A

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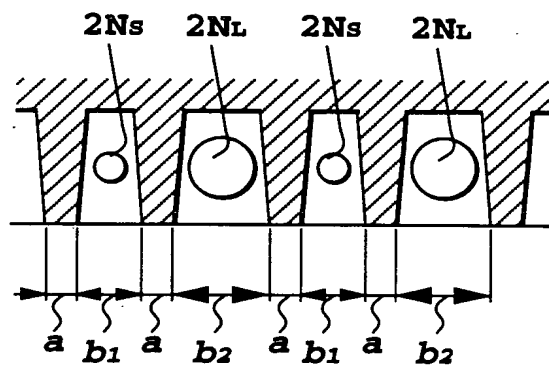


FIG.59B

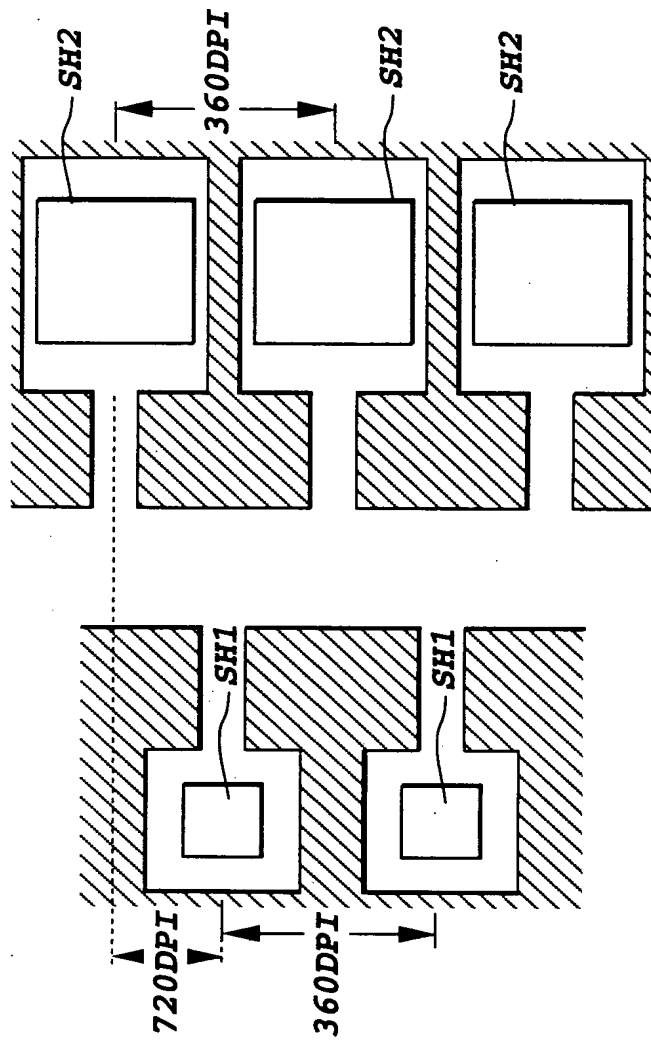


FIG.60A

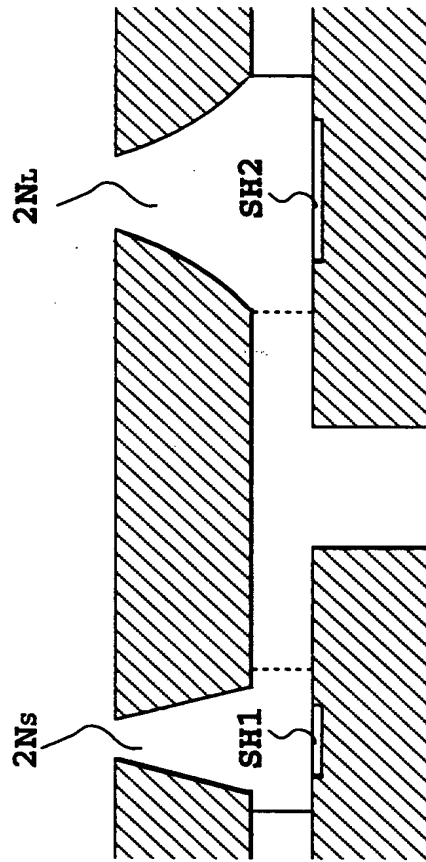


FIG. 60B

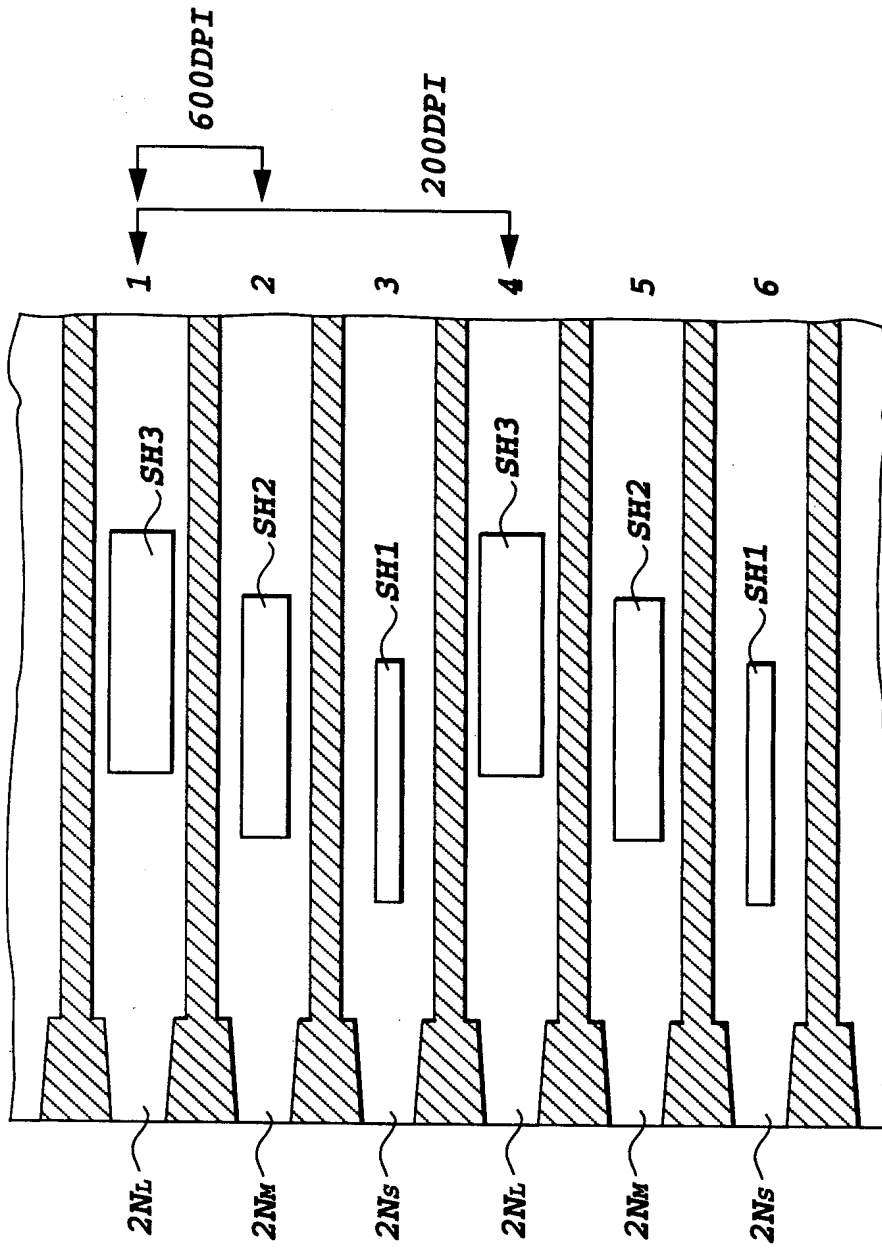
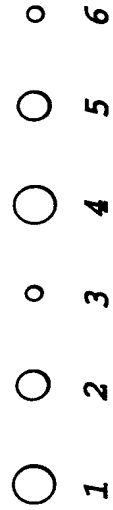


FIG. 61



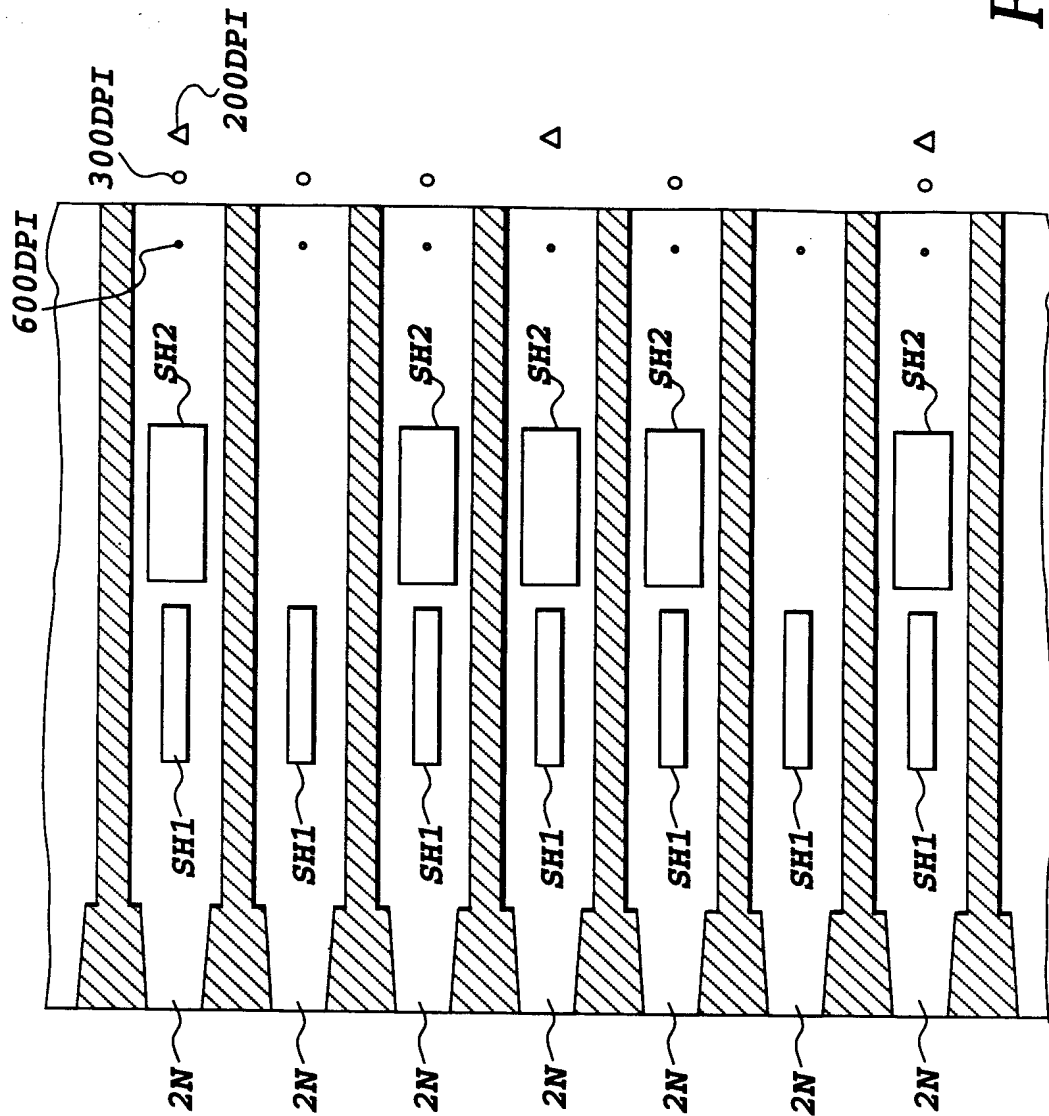


FIG.62